CERTAIN CAST-IRON PIPE FITTINGS FROM BRAZIL, THE REPUBLIC OF KOREA, AND TAIWAN

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ORIGINAL

Determinations of the Commission In Investigations Nos. 731-TA-278 through 281 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigations

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Note.--Information which would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Deletions are indicated by asterisks.

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UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, DC

Investigations Nos. 731-TA-278 through 281 (Preliminary)

CERTAIN CAST-IRON PIPE FITTINGS FROM BRAZIL, THE REPUBLIC OF KOREA, AND TAIWAN

Determinations

On the basis of the record 1/ developed in investigations Nos. 731-TA-278 through 280, the Commission determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Brazil, the Republic of Korea (Korea), and Taiwan of nonalloy, threaded, malleable cast-iron pipe fittings, 2/ provided for ir items 610.70 and 610.74 of the Tariff Schedules of the United States, which are alleged to be sold in the United States at less than fair value (LTFV).

On the basis of the record developed in investigation No. 731-TA-281, the Commission determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured 3/ by reason of imports from Taiwan of nonalloy, threaded and flanged, nonmalleable cast-iron pipe fittings, other than for cast-iron soil pipe, 4/ provided for in items 610.62 and 610.65 of the Tariff Schedules of the United States, which are alleged to be sold in the United States at less than fair value.

1/ The record is defined in sec. 207.2(i) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(i)).

2/ The malleable cast-iron pipe fittings covered by these investigations are those with standard pressure ratings of 150 pounds per square inch (psi) and heavy-duty pressure ratings of 300 psi.

3/ Vice Chairman Liebeler finds a reasonable indication of threat of material injury.

4/ The nonmalleable cast-iron pipe fittings covered by this investigation are those with standard pressure ratings of 125 psi and heavy-duty pressure ratings of 250 psi.

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Background

On July 31, 1985, a petition was filed with the Commission and the Department of Commerce by the Cast Iron Pipe Fittings Committee, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of malleable cast-iron pipe fittings from Brazil, Korea, and Taiwan, and that an industry in the United States is materially injured or threatened with material injury by reason of imports of nonmalleable cast-iron pipe fittings from Taiwan. Accordingly, effective July 31, 1985, the Commission instituted preliminary antidumping investigations Nos. 731-TA-278 through 281 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of August 7, 1985 (50 F.R. 31928). The conference with respect to investigations Nos. 731-TA-279 through 281 (Preliminary) was held in Washington, DC, on August 22, 1985, and all persons who requested the opportunity were permitted to appear in person or by counsel.

No conference was held with respect to investigation No. 731-TA-278 (Preliminary) involving malleable cast-iron pipe fittings from Brazil due to the time constraints resulting from the issuance of a temporary restraining order by the Court of International Trade. However, all persons who wished to submit written comments or briefs were given an opportunity to do so. 1/

1/ 50 F.R. 36157 (Sept. 5, 1985), 50 F.R. 36926 (Sept. 10, 1985).

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VIEWS OF THE COMMISSION

We determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of malleable cast-iron pipe fittings from Brazil, Korea, and Taiwan, which are allegedly sold at less than fair value (LTFV).

We also determine that there is a reasonable indication of material injury to an industry in the United States by reason of imports of nonmalleable cast-iron pipe fittings from Taiwan, which are allegedly sold at less than fair value (LTFV). 1/

We base these determinations on the evidence that the allegedly unfair imports are a cause of the depressed condition of the domestic industries producing the like products. The total imports of allegedly LTFV malleable fittings have significantly increased in volume and have increased their market share. We further note consistent underselling by the subject malleable imports during a time of generally stagnant or declining domestic prices and declining domestic market share. 2/ The subject nonmalleable pipe fitting imports have also increased recently in both volume and in their share of the domestic market, and we note that there is evidence that the nonmalleable imports have had a price suppressing effect on domestic prices.

Like products and domestic industries

As a threshold matter, we are required to define the scope of the relevant domestic industries to be examined in these antidumping duty investigations. The term "industry" is defined by statute as "the domestic

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1/ Vice Chairman Liebeler finds only a reasonable indication of threat of material injury in this investigation.

2/ Vice Chairman Liebeler disagrees with the relevance of this finding. See n.29, infra.

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producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." 3/ "Like product," in turn, is defined as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation . . . ." 4/

Recently, in a countervailing duty investigation involving imports of certain cast-iron pipe fittings from Brazil, the Commission found that malleable cast-iron pipe fittings and nonmalleable cast-iron pipe fittings were two separate like products, and that there were two domestic industries in the United States producing malleable and nonmalleable pipe fittings, respectively. 5/ Petitioner has adopted the separate industry findings of that case and has filed separate petitions relating to those industries. No information has been presented nor arguments made during this preliminary investigation which indicates that the Commission should adopt definitions of the like products or domestic industries different from those made in the previous investigation. Accordingly, for Invs. Nos. 731-TA-278 through 280 (Preliminary), involving imports of malleable cast-iron pipe fittings from Brazil, Korea, and Taiwan, we find the like product to be malleable cast iron pipe fittings, and the domestic industry to be comprised of producers of malleable cast-iron pipe fittings. For Inv. No. 731-TA-281 (Preliminary), involving imports of nonmalleable cast-iron pipe fittings from Taiwan, we find the like product to be nonmalleable cast-iron pipe fittings and the domestic

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3/ 19 U.S.C. § 1677(4)(A).
4/ 19 U.S.C. § 1677(10).
5/ Certain Cast-Iron Pipe Fittings from Brazil, Inv. No. 701-TA-221 (Final), USITC Pub. 1681 (April 1985) (hereinafter "countervailing duty investigation").

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industry to be comprised of producers of nonmalleable cast-iron pipe fittings. 6/

Condition of the domestic industries 7/ 8/

In the Commission's recent final countervailing duty determination involving cast-iron pipe fittings, the Commission found that both the malleable and nonmalleable cast-iron pipe fitting industries were suffering material injury. 9/ The condition of both industries remains unhealthy, and

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6/ One domestic producer also imported significant quantities of malleable cast-iron pipe fittings from one of the countries under investigation. Accordingly, we have considered whether this domestic producer should be excluded from the domestic industry as a "related party" under the statute, 19 U.S.C. § 1677(4)(B). We find that including the producer who imports pipe fittings from the country in question does not significantly bias the data collected in these investigations. Thus, we find that appropriate circumstances do not exist for excluding this domestic producer from the definition of the domestic malleable pipe fitting industry.

7/ Much of the information available on this subject is business confidential. Thus, we must limit our discussion to general trends and public information.

8/ Commissioner Rohr notes that the financial data for these industries will need to be more closely examined in any final investigation.

9/ The Commission found, however, that the material injury to each industry was not by reason of the subject imports in that case and rendered a negative determination. Commissioner Eckes dissented, finding material injury by reason of the subject imports to the malleable pipe fitting industry. USITC Pub. 1681 (April 1985).

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we find a reasonable indication that both industries are materially injured. 10/ 11/

Malleable cast-iron pipe fittings industry

The condition of the malleable pipe fitting industry appears to have worsened since the end of 1984, the latest period examined in the recent countervailing duty investigation. Generally, the improvement in the economic indicators for this industry which the Commission noted had occurred in 1984 has not continued in the first half of this year. While domestic shipments rose in calendar year 1984 from their low point in 1983, those shipments remained below 1982 levels. Domestic shipments declined by six percent in the first six months of 1985 relative to the same period in 1984. Production data reveal similar trends, with production declining by 11 percent in the first six months of 1985 compared to the same period of 1984. 12/

10/ Chairwoman Stern does not believe it necessary or desirable to make a determination on the question of material injury separate from the consideration of causality. She joins her colleagues by concluding that the domestic industries are experiencing economic problems.

11/ Commissioner Eckes believes that the Commission is to make a finding regarding the question of material injury in each investigation. The Court of International Trade recently held that:

> The Commission must make an affirmative finding only when it finds both (1) present material injury (or threat to or retardation of the establishment of an industry) and (2) that the material injury is 'by reason of' the subject imports. Relief may not be granted when the domestic industry is suffering material injury but not by reason of unfairly traded imports. Nor may relief be granted when there is no material injury, regardless of the presence of dumped or subsidized imports of the product under investigation. In the latter circumstances, the presence of dumped or subsidized imports is irrelevant, because only one of the two necessary criteria has been met, and any analysis of causation of injury would thus be superfluous.

American Spring Wire Corp. v. United States, 590 F. Supp. 1273, 1276 (Ct. Int'l Trade 1984) (emphasis supplied) aff'd sub nom., Armco Inc. v. United States, 760 F.2d 249 (C.A.F.C. 1985).

12/ Report of the Commission (Report) at A-20-A-22.

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While domestic capacity has remained stable, capacity utilization declined to 46.8 percent in the first six months of 1985 compared to a rate of 52.8 percent in the first six months of 1984. Employment of workers producing malleable cast-iron pipe fittings decreased by 11 percent in the January June period of this year relative to the same period in 1984. Hours worked, wages, and total compensation also declined over this period. 13/

Financial data for the domestic industry exhibit similar negative trends. Net sales declined to $54.8 million during the first half of 1985, compared to a figure of $58.3 million in the corresponding period of 1984. Operating income has deteriorated steadily since 1982, and the industry has suffered operating losses in 1984 and the first half of 1985. 14/

Accordingly, there is a reasonable indication that this industry is materially injured. 15/ 16/

Nonmalleable cast-iron pipe fittings industry

Although recent data indicate some improvement in the domestic industry's condition since the Commission studied it during its recent countervailing duty investigation, it appears to remain in a weakened condition. While production increased in the first six months of 1985 relative to the first six months of 1984, and capacity utilization in the first six months of 1985 improved from earlier levels, capacity utilization remains at a relatively low level of 61 percent. 17/

Operating income declined every year since 1982, and while some improvement is indicated in the first six months of 1985, operating income

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13/ Id. at A-20-A-21, A-23-A-25.
14/ Id. at A-27-A-28.
15/ See n.10, supra.
16/ See n.11, supra.
17/ Report at A-20-A-21.

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remains far below the 1982 level if the partial year data for 1985 is annualized. 18/

Accordingly, despite the recent improvement in the condition of this industry, we find a reasonable indication that it is materially injured. 19/ 20/

Reasonable indication of material injury by reason of alleged LTFV imports

In determining whether there is a reasonable indication of material injury by reason of allegedly LTFV imports, the Commission is directed by section 771(7)(B) of the Tariff Act of 1930 to consider, among other factors, the volume of imports of the merchandise under investigation, the effect of such imports on domestic prices, and the impact of such imports on the domestic industry. 21/

Cumulation of malleable cast-iron pipe fitting imports

The petitioner has argued that the Commission should cumulate the malleable imports from Brazil, Korea, and Taiwan. The Trade and Tariff Act of 1984 added a new statutory provision on cumulation:

> (iv) CUMULATION- For the purposes of clauses (i) and (ii), the Commission shall cumulatively assess the volume and effect of imports from two or more countries of like products subject to investigation if such products compete with each other and with the like products of the domestic industry in the United States market. 22/

Thus, the subject imports must satisfy three requirements before cumulation is warranted. They must (1) compete with both other imports and the domestic

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18/ Id. at A-28-A-29.
19/ See n.10, supra.
20/ See n.11, supra.
21/ 19 U.S.C. § 1677(7)(B).
22/ 19 U.S.C. § 1677(7)(C)(iv).

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like product, (2) be marketed within a reasonably coincidental period, and (3) be subject to investigation. 23/

For the purposes of this preliminary determination, we determine malleable cast-iron pipe fittings from Brazil, Korea, and Taiwan do compete with each other and the domestic like product. Channels of distribution for the imports and the domestic product appear to be generally similar. Although there is evidence that some customers perceive quality differences between these products, there is also evidence that the imports and the domestic product are comparable in quality. While there is some evidence that imports from Korea and Taiwan are sold to a greater extent in the residential market than are either the domestic or Brazilian products, there appears to be a reasonable overlap among the importers and the domestic producers as to the end-users to whom the product is directed. There also appears to be a

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23/ In prior investigations under the new law, we considered the following factors to determine whether the imports compete with each other and the domestic product:

(1) the degree of fungibility between imports from different countries and between imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
(2) the presence of sales or offers to sell in the same geographic markets of imports from different countries and the domestic product;
(3) the existence of common or similar channels of distribution for imports from different countries and the domestic like product;
(4) whether the prices of imports and the domestic like product are within a reasonable range;
(5) whether the imports are simultaneously present in the market.

No single one of the factors we considered is determinative, but they provide a focus for determining whether competition exists between the subject imports among themselves and between the subject imports and the domestic product. See, e.g., Certain Steel Wire Nails from the People's Republic of China, Poland, and Yugoslavia, Invs. Nos. 731-TA-206-268 (Preliminary), USITC Pub. 1730 (July 1985).

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reasonable overlap as to the geographic areas to which the imports and the domestic like product are offered for sale. 24/ We also find that the marketing of the imports has been reasonably coincidental in time.

Accordingly, we have considered the cumulative impact of the allegedly LTFV malleable imports from Brazil, 25/ Korea, and Taiwan in making our determinations as to whether a reasonable indication of material injury exists by reason of the malleable imports from these countries.

Impact of alleged unfair imports of malleable cast-iron pipe fittings

The total imports of allegedly LTFV malleable pipe fitting imports from Brazil, Korea, and Taiwan have risen significantly over the period of this investigation, increasing from 6,170 short tons in 1982 to 10,254 short tons in 1984. Imports have also increased in the first six months of 1985 relative to the first six months of 1984, from 4,667 short tons to 6,168 short tons. 26/ Cumulative import penetration has similarly increased from 9.6 percent in 1982 to 13 percent in 1984, with a further increase in the first six months of 1985 relative to the first six months of 1984, from 12.3 percent to 18.5 percent. 27/ At the same time, the domestic market share, measured as

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24/ Report at A-8-A-12; A-37, A-48-A-53; B-13-B-17; Memorandum INV-1-175 (Sept. 10, 1985). We will examine the question of the extent to which the subject imports compete with each other and the domestic like product more closely in any final investigation.

25/ Commissioner Rohr notes that the recent negative determination of the Commission as to a causal linkage between Brazilian imports and the condition of the domestic malleable cast-iron pipe fitting industry is not determinative in this investigation because that decision obviously did not address the question of whether Brazilian imports in conjunction with other imports might be materially injuring the domestic industry.

26/ Report at A-36.

27/ Id. at A-40. As in the previous countervailing duty investigation, market penetration ratios were calculated to take into account the holding of imports in importer inventories to avoid consideration of import volumes that have not yet entered the marketplace.

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the ratio of domestic shipments of domestic production relative to apparent U.S. consumption, has declined from 73.6 percent in 1982 to 66.8 percent in 1984. Domestic market share has further decreased to 67.1 percent in the first six months of 1985 relative to the domestic market share of 67.4 percent in the first six months of 1984. 28/

The pricing data obtained by the Commission indicate some underselling by the imports for calendar quarters before the second quarter of 1984 and consistent underselling by the imports for all calendar quarters for which data were available from the second quarter of 1984 through the second quarter of 1985, the latest period for which data were available. 29/ Domestic prices have remained generally stagnant or have declined. 30/

28/ Id.

29/ Vice Chairman Liebeler notes that although the statute requires the Commission to determine whether there is significant price undercutting, she does not find the particular data on underselling gathered by the Commission in this investigation useful in determining whether the material injury is by reason of allegedly LTFV imports. Firms, whether foreign or domestic, generally charge the profit maximizing price for their product. As a result, price differentials are usually accounted for by differences in the product or associated services. Thus, "underselling" based on a comparison of transactions' prices has no relevant economic content. Price undercutting refers to predatory pricing behavior whereby a firm lowers its prices to drive out competitors in order to gain monopoly power. See, e.g., Views of Vice Chairman Liebeler, Certain Welded Carbon Steel Pipes and Tubes from Thailand and Venezuela, Invs. Nos. 731-TA-252-253 (Preliminary), USITC Pub. 1680 (1985).

30/ Report at A-45, A-47. Commissioner Rohr notes that pricing data in any final investigation should reflect the realities of market differentiation and levels of trade that exist with respect to these products, such as differences between residential and industrial use and between sales to the professional and retail markets.

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The Commission staff has been able to confirm nine lost sales to the allegedly LTFV imports. 31/ 32/ The domestic industry has lost sales to imports from each of the countries under investigation.

In light of the significant increase in the cumulated imports, the significant level of import volume and the significant increase in the import market share, the consistent underselling by the subject imports during a time of generally stagnant or declining domestic prices and declining domestic market share, and confirmed sales lost to the subject imports by the domestic industry, we find a reasonable indication of material injury by reason of the cumulated imports of malleable cast-iron pipe fittings from Brazil, Korea, and Taiwan. 33/

Impact of alleged unfair imports of nonmalleable cast-iron pipe fittings 34/

Imports of nonmalleable pipe fittings from Taiwan declined from 810 short tons in 1982 to 452 short tons in 1983, but increased to 1,135 short tons in 1984. Imports have continued to increase in the first six months of 1985

31/ Vice Chairman Liebeler notes that the presence or absence of confirmed lost sales is not determinative or persuasive on the question of a causal link between LTFV imports and material injury to the domestic industry. Typically, an import that is sold at less than fair value affects the domestic industry the same way regardless of whether it is a confirmed lost sale. Although it might be appropriate to inquire whether a sale by a respondent has been in lieu of sales by the domestic industry or, alternatively, at the expense of imports from other countries, Commission information on lost sales is not capable of providing an answer to such a question because the data are based on a very small and biased sample.

32/ Commissioner Rohr notes that the lost sales that were confirmed in this investigation amounted to a minimal percentage of total imports or apparent domestic consumption. See Memorandum INV-I-175 (Sept. 10, 1985).

33/ Vice Chairman Liebeler's determination is based on the volume and trend of cumulated imports and not on underselling or lost sales. See nn.29 and 31, supra.

34/ Vice Chairman Liebeler finds a reasonable indication of threat of material injury only because the penetration ratio for nonmalleable pipe fittings was at a relatively low level prior to the first half of 1985. See Report at A-40.

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relative to the first six months of 1984, increasing from 593 short tons to 1,381 short tons. Import penetration, measured as a ratio of import volume to domestic shipments of U.S. production, has exhibited a similar pattern, declining from 2 percent in 1982 to 1.4 percent in 1983, rising in 1984 to 2.5 percent and rising significantly in the first half of 1985 to 5.8 percent compared to 2.5 percent in the first half of 1984. The domestic industry's share of the market has declined from 86.4 percent in 1982 to 80.6 percent in 1984. Domestic market share has increased somewhat in the first six months of 1985 compared to the first six months of 1984, from 77.9 percent to 80.7 percent, but remains below the 1982 and 1983 levels. 35/

Pricing data obtained by the Commission indicate consistent underselling by the imports from Taiwan since the third quarter of 1983. 36/ Domestic prices have fluctuated or declined since the first quarter of 1983 while the prices of the imports from Taiwan have significantly declined. We find these price trends to be evidence that the imports from Taiwan are suppressing prices, and note in particular that while the domestic industry attempted to raise prices in the last half of 1984, the prices of the imports from Taiwan either declined or remained generally steady. Apparently, as a result, domestic prices declined in late 1984 or early 1985. At the same time, prices of the imports from Taiwan declined and import volumes increased sharply. 37/

35/ Id. at A-38, A-40. As in the previous countervailing duty investigation, we have calculated market penetration ratios to take into account of the holding of imports in importer inventories, to avoid consideration of import volumes that have not yet entered the marketplace.

36/ See n.29, supra.

37/ See Report at A-42-A-43.

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We therefore conclude, in light of the significant increase in imports and import penetration of nonmalleable cast-iron pipe fittings from Taiwan in the first half of 1985, the existence of consistent underselling, and declining price trends that suggest that the imports are having a suppressing effect on domestic prices, that there is a reasonable indication of material injury by reason of alleged LTFV imports of nonmalleable cast-iron pipe fittings from Taiwan. 38/

38/ Vice Chairman Liebeler's determination is based on the volume and trend of allegedly subsidized imports and not on underselling. See n.29, supra.

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INFORMATION OBTAINED IN THE INVESTIGATIONS

Introduction

On July 31, 1985, the U.S. International Trade Commission and the U.S. Department of Commerce received petitions filed by counsel on behalf of the Cast Iron Pipe Fittings Committee, 1/ alleging that an industry in the United States is materially injured, or is threatened with material injury, by reason of imports from Brazil, 2/ the Republic of Korea (Korea), 3/ and Taiwan 4/ of nonalloy, malleable cast-iron pipe fittings, provided for in items 610.70 and 610.74 of the Tariff Schedules of the United States (TSUS), which are alleged to be sold in the United States at less than fair value, and by reason of imports from Taiwan of nonalloy, nonmalleable cast-iron pipe fittings other than for cast-iron soil pipe, provided for in TSUS items 610.62 and 610.65, 5/ which are alleged to be sold at less than fair value. Accordingly, the Commission instituted these preliminary antidumping investigations under section 733(a) of the Tariff Act of 1930 6/ to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of the importation of such merchandise.

On August 7, 1985, the Commission received a letter from counsel for the petitioner stating that "groove-lock" pipe fittings are not covered by the petitions. On August 9, 1985, the Commission received amendments to the petitions modifying the definition of the malleable products to include only threaded products and modifying the definition of the nonmalleable products to include only threaded and flanged products.

On August 20, 1985, the U.S. Department of Commerce initiated antidumping investigations to determine whether the subject merchandise is sold in the United States at less than fair value.

Notice of the institution of the Commission's investigations and of a conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of August 7, 1985 (50 F.R. 31928). 7/ In connection with the Commission's investigations, a conference was held in Washington, DC, on August 22, 1985. 8/ On August 21, 1985, the Court of International Trade

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1/ The 5 member producers of this committee are Stanley G. Flagg & Co., Inc., ITT Grinnell Corp., Stockham Valves & Fittings Co., U-Brand Corp., and Ward Foundry Division of Clevepak Corp. U-Brand Corp. did not join the other members of the Committee in filing the petitions.

2/ Investigation No. 731-TA-278 (Preliminary).

3/ Investigation No. 731-TA-279 (Preliminary).

4/ Investigation No. 731-TA-280 (Preliminary).

5/ Investigation No. 731-TA-281 (Preliminary).

6/ 19 U.S.C. § 1673b(a).

7/ A copy of the Commission's notice is presented in app. A.

8/ A list of witnesses appearing at the conference is presented in app. B.

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issued a temporary restraining order halting the investigation with respect to Brazil (investigation No. 731-TA-278). As a result, the conference that was held on August 22, 1985, did not include the investigation of imports from Brazil. On September 3, 1985, the temporary restraining order expired and on September 4, 1985, the Commission resumed its investigation on imports from Brazil. On September 4, 1985, the Court dismissed the action which sought a preliminary injunction of the Brazilian case. The Commission's vote was held on September 11, 1985, and the final determinations were transmitted to the Department of Commerce on September 16, 1985.

Previous Commission Investigations

On April 13, 1977, the Commission instituted investigation No. TA-201-26 under section 201 of the Trade Act of 1974 concerning malleable cast-iron pipe and tube fittings, provided for in TSUS items 610.70, 610.71, and 610.74, in response to a petition filed by the American Pipe Fittings Association. On September 19, 1977, the Commission reported to the President its unanimous finding that malleable cast-iron pipe and tube fittings were not being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing like or directly competitive articles.

On January 7, 1980, the Department of Commerce advised the Commission of its preliminary determination that certain malleable cast-iron pipe fittings exported from Japan might be subsidized. Effective January 1, 1980, the Commission instituted investigation No. 701-TA-9 (Final) under section 703(a) of the Tariff Act of 1930 to determine whether an industry in the United States was materially injured or threatened with material injury or the establishment of an industry was materially retarded by reason of the importation of these pipe fittings into the United States. On March 20, 1980, the Commission terminated the investigation upon written request by counsel for the petitioners, the American Pipe Fittings Association.

On September 18, 1984, the Commission instituted investigations in response to petitions filed by the Cast-Iron Pipe Fittings Committee, which alleged that an industry in the United States was materially injured, or threatened with material injury, by reason of imports of certain cast-iron pipe fittings that were allegedly subsidized by the Governments of Brazil and India. The investigation on India was terminated on October 9, 1984, following withdrawal of the petition. On March 5, 1985, the Department of Commerce made its final determination that such subsidies existed. On April 17, 1985, the Commission determined that there were two domestic industries, producers of malleable cast-iron pipe fittings and producers of nonmalleable cast-iron pipe fittings, and that there was no material injury or threat thereof to these industries by reason of imports of nonalloy, malleable or nonalloy, nonmalleable cast-iron pipe fittings that were subsidized by the Government of Brazil (50 F.R. 16173, Apr. 24, 1985). 1/ This negative

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1/ Commissioner Eckes determined that an industry in the United States was materially injured by reason of imports of malleable cast-iron pipe fittings.

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determination was "based on the lack of a causal nexus between the condition of the domestic industries and the subsidized imports from Brazil." 1/

The Product

Description and uses

Malleable and nonmalleable cast-iron pipe and tube fittings serve to join pipes in straight lines; to change, divert, divide, or direct the flow of liquid, gas, or steam in piping systems; to provide access for cleaning and branching in piping systems; and to reduce or increase the diameter of piping systems.

Nonmalleable cast-iron fittings have little or no ductility and can be broken with the blow of a hammer. These fittings will not stretch when a piping system is assembled and consequently are not likely to leak. They are usually available in inside diameters ranging from 1/4 inch to 6 inches. Smaller sized fittings are usually machined with threads and attached to pipe by screwing. Larger fittings generally have flanged ends and are attached to the flanged ends of pipe with bolts. Common varieties of nonmalleable pipe fittings include bends, branches, traps, drains, and reducers. Although there are thousands of individual patterns for such fittings, fewer than 50 basic patterns account for the vast majority of nonmalleable fittings manufactured. Nonmalleable cast-iron fittings are produced to pressure ratings of 125 pounds per square inch (psi) for the standard pressure class, which accounts for approximately 99 percent of sales of nonmalleable fittings, and of 250 psi for the heavy-duty pressure class, as established by the American Society for Testing & Materials (ASTM) and the American National Standards Institute (ANSI). Nonmalleable fittings are used almost entirely as pressure pipe fittings for cast-iron pipes, although some are used with steel pipes. The predominant use of nonmalleable cast-iron fittings is in sprinkler and heating systems for commercial buildings.

Malleable fittings can be machined and subjected to stress with less likelihood of fracture than nonmalleable fittings. The major advantages of malleable fittings are that they are lighter in weight and more ductile than nonmalleable fittings. They are used where shock and vibration resistance is required and where fittings are subject to quick temperature changes. Malleable fittings may be machined and attached to pipe by screwing, or they may have grooved ends that attach to pipe with a locking device. 2/ The grooved fittings are generally found in larger sizes than the threaded fittings. Malleable fittings are available in hundreds of configurations, the most common being 90-degree elbows, tees, couplings, and unions. They are produced in both black (ungalvanized) and galvanized form. Malleable fittings are commonly produced with inside diameters of 1/2 inch to 6 inches; other

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1/ Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. 3.

2/ The petitioner amended the petitions to exclude grooved pipe fittings.

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sizes are available on special order. Malleable cast-iron fittings have a minimum performance rating of 150 psi for the standard pressure class, which accounts for approximately 93 percent of sales of malleable fittings, 1/ and 300 psi for the heavy-duty pressure class, as rated by the ASTM and the ANSI. The principal uses of malleable cast-iron fittings are in gas lines, piping systems of oil refineries, and gas and water systems of buildings.

Manufacturing process

The manufacturing process for cast-iron pipe fittings begins with the making of molten iron, usually in a cupola furnace. The raw materials for both malleable and nonmalleable fittings are scrap steel, pig iron, and other materials such as ferrosilicon, coke, and limestone. The molten-gray iron for nonmalleable fittings has a somewhat higher content of carbon, silicon, and manganese (approximately 3.5, 2.4, and 0.6 percent, respectively, of total weight) than the molten iron for malleable fittings (approximately 2.5, 1.4, and 0.4 percent, respectively, of total weight). 2/ Because of the differences in the chemical composition of the molten iron, malleable and nonmalleable fittings are produced in separate production runs unless two furnaces are available.

Sand-casting is the predominant method used in the making of malleable and nonmalleable cast-iron pipe fittings. The casting process begins with the making of a pattern, which is of the same configuration as the desired fitting. Molding sand is mixed with a binder, spread around the pattern in a mold, and then rammed by a machine to compact the sand. The pattern is withdrawn, leaving a cavity in which molded cores are inserted to form the internal shape of the fitting. The two mold halves are put together, and the molten iron (either malleable or nonmalleable) is poured into the cavity. The molds and cores are slightly different for malleable and nonmalleable fittings because of the differences in mechanical properties in each type of fitting. After the iron solidifies, the red-hot fitting is dropped on a "shaker" table or belt, which shakes off the sand. At this point, nonmalleable and malleable fittings are cooled and cleaned. Nonmalleable fittings are then machined and are ready for use.

In contrast, malleable fittings require an additional step of annealing. Annealing consists of rapidly heating the fittings to approximately 1,750 °F., followed by a quick cooling and then a slower cooling. The overall cooling process, which takes from 25 to 40 hours, improves the ductility and durability of the metal by reducing its brittleness. Almost all malleable cast-iron fittings are advanced (machined) after the casting stage. Advancement usually involves threading, grooving, or other similar operations.

1/ Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-4.

2/ Ibid.

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U.S. tariff treatment

The cast-iron pipe fittings covered by these investigations are subject to the following most-favored-nation (MFN) (col. 1) rates of duty: 1/

TSUS item	Rate of duty (Percent ad valorem)
Nonmalleable:	
610.62	7.2
610.65	2.7
Malleable:	
610.70	6.1
610.74	7.8

The above rates of duty are the current rates in staged reductions that began in 1980 and will end in 1987. Imports of cast-iron pipe fittings have been eligible for duty-free treatment under the Generalized System of Preferences (GSP) since January 1, 1976. 2/ The Brazilian articles receive such GSP treatment; with the following exceptions, imports of the cast-iron pipe fittings from Korea and Taiwan that are subject to investigation have been accorded GSP treatment:

Korea:
  TSUS item 610.74: No GSP treatment after March 30, 1984.
Taiwan:
  TSUS item 610.70: No GSP treatment after March 30, 1984.
  TSUS item 610.74: No GSP treatment after March 30, 1984.

Nature and Extent of Alleged Sales at Less Than Fair Value

The petitioner selected two common cast-iron pipe fittings for purposes of estimating dumping margins in each petition: the two malleable fittings are a 1/2-inch black ell (elbow) and a 1/2-inch galvanized ell; the two nonmalleable fittings are a 1-inch ell and a 1-inch by 1/2-inch reducer.

Brazil 3/

To estimate dumping margins for Brazilian malleable cast-iron pipe fittings, the petitioner compared Brazilian prices and constructed values of

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1/ Col. 1 rates of duty are applicable to imported products from all countries except those Communist countries and areas enumerated in general headnote 3(f) of the TSUSA. Imports from the latter countries are assessed the col. 2 duty rates of 25, 20, 20, and 45 percent ad valorem, respectively, under the four TSUS items. These products, if from designated beneficiary countries, are also eligible for duty-free entry under the Caribbean Basin Economic Recovery Act (CBERA).

2/ The GSP, enacted as title V of the Trade Act of 1974, provides duty-free entry to specified eligible articles imported directly from designated beneficiary developing countries. The GSP, implemented in Executive Order No. 11888 of Nov. 24, 1975, applies to merchandise imported on or after Jan. 1, 1976, and before the close of July 4, 1993.

3/ Petition in investigation No. 731-TA-278, pp. 14-15.

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Brazilian products with U.S. distributors' prices to arrive at the following alleged margins (in percent):

Brazilian price:	
1/2-inch black ell-------	42.58
1/2-inch galvanized ell--	46.03
Constructed value:	
1/2-inch black ell-------	8.80 1/
1/2-inch galvanized ell--	14.46

1/ Amount shown is the amount above fair value.

Korea 1/

To estimate dumping margins for Korean malleable cast-iron pipe fittings, the petitioner compared constructed values of Korean products with direct offers by Korean exporters to U.S. firms and with U.S. distributors' prices to arrive at the following alleged margins (in percent):

Direct offers:	
1/2-inch black ell-------	41.9
1/2-inch black ell-------	88.6
1/2-inch galvanized ell--	52.3
1/2-inch galvanized ell--	109.0
Distributors' prices:	
1/2-inch black ell-------	77.7
1/2-inch black ell-------	51.2
1/2-inch galvanized ell--	123.3
1/2-inch galvanized ell--	90.0

Taiwan

To estimate dumping margins for Taiwan malleable cast-iron pipe fittings, the petitioner compared Taiwan prices and constructed values of Taiwanese products with direct offers by Taiwanese exporters to U.S. firms and with U.S. distributors' prices to arrive at the following alleged margins (in percent): 2/

Taiwan prices:	
Direct offers:	
1/2-inch black ell-------	77.7
1/2-inch galvanized ell--	104.0
1/2-inch galvanized ell--	76.9
1/2-inch galvanized ell--	84.0
Distributors' prices:	
1/2-inch black ell-------	39.1
1/2-inch galvanized ell--	60.0

1/ Petition in investigation No. 731-TA-279, pp. 14-15.
2/ Petition in investigation No. 731-TA-280, pp. 18-21.

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Constructed values:
  Direct offers:
    1/2-inch black ell------- 153.0
    1/2-inch galvanized ell-- 217.0
    1/2-inch galvanized ell-- 175.0
    1/2-inch galvanized ell-- 186.0
  Distributors' prices:
    1/2-inch black ell------- 98.3
    1/2-inch galvanized ell-- 148.6

In addition, the petitioner alleged that prices of malleable cast-iron pipe fittings are lower than the cost of production of such fittings.

To estimate dumping margins for Taiwan nonmalleable cast-iron pipe fittings, the petitioner compared constructed values of Taiwan products with U.S. distributors' prices to arrive at the following alleged margins (in percent): 1/

1-inch ell------------ 153.0
1 by 1/2-inch reducer-- 217.0

The Domestic Market

Apparent U.S. consumption 2/

Apparent U.S. consumption of all cast-iron pipe fittings covered by the investigations declined by 6 percent from 1982 to 1983 and then increased by 15 percent from 1983 to 1984 (table 1). In January-June 1985 consumption was nearly identical to that during the corresponding period of 1984. Consumption of malleable fittings declined by 6 percent from 1982 to 1983 and then

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1/ Petition in investigation No. 731-TA-281, pp. 12-13.

2/ Apparent U.S. consumption as presented in this section is calculated by adding domestic shipments of U.S. production to adjusted official import statistics. Official import statistics are adjusted in two ways. First, any items that are not covered by these investigations but are known to be included in import statistics are subtracted from the statistics. (See the section entitled "U.S. imports" for a description of these items.)

Second, import statistics are adjusted to account for inventories of imports reported to the Commission in importers' questionnaires. Thus, if inventories declined from the end of 1983 to the end of 1984, the amount of that decline would be added to the amount of imports. Similarly, if inventories increased, the amount of that increase would be subtracted from the amount of imports. This adjustment can be made only for those inventories for which information is available--inventories of imports from countries covered by these investigations. Statistics on imports from other countries are not adjusted, which, in effect, operates as an assumption that inventories of imports from those countries do not change from year to year. The intent of this adjustment is to more accurately portray the amount of imports that actually entered the marketplace, rather than the amount that simply entered into the United States. Apparent U.S. consumption calculated without adjusting for inventories of imports is presented in app. C.

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Table 1.--Certain cast-iron pipe fittings: U.S. imports, production, and apparent U.S. consumption, by types, 1982-84, January-June 1984, and January-June 1985

(In short tons)

Item	1982	1983	1984	January-June--	
				1984	1985
Malleable:					
Imports 1/	16,973	17,359	22,798	11,188	11,638
U.S. production 2/	47,250	43,322	45,891	23,077	21,726
Total	64,223	60,681	68,689	34,265	33,364
Nonmalleable:					
Imports 1/	5,664	5,870	8,788	4,991	4,529
U.S. production 2/	35,949	32,512	36,446	17,636	18,929
Total	41,613	38,382	45,234	22,627	23,458
Total:					
Imports 1/	22,637	23,230	31,585	16,179	16,167
U.S. production 2/	83,199	75,834	82,337	40,713	40,655
Total	105,836	99,064	113,922	56,892	56,822

1/ Official import statistics are adjusted to eliminate known misclassifications and to account for known inventories of imports.

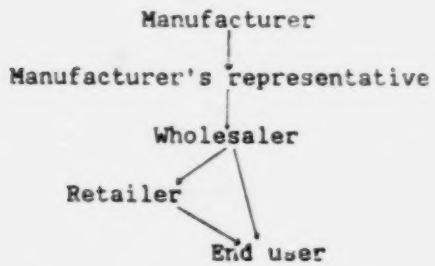
2/ Statistics on U.S. production represent only domestic shipments of such products.

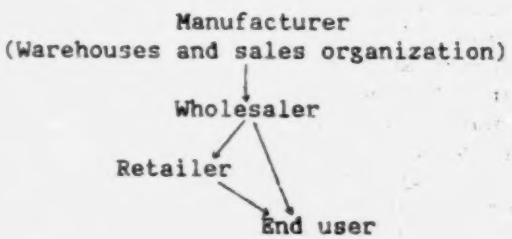
Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from official statistics of the U.S. Department of Commerce.

increased by 13 percent in 1984. In January-June 1985, consumption of malleable fittings was 3 percent below that in January-June 1984. Nonmalleable fittings saw a 1982-83 decline in consumption of 8 percent, and then a 1983-84 increase of 18 percent. The gain in the market for such fittings continued in January-June 1985, when consumption rose by 4 percent over that in January-June 1984.

Channels of distribution

U.S.-produced cast-iron pipe fittings are generally sold through one of two similar channels of distribution, diagramed as follows:





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A U.S. producer usually sells either through a manufacturer's representative or through a sales arm of its own organization. Sales generally consist of a full line of pipe fittings, including a range of the most common configurations and sizes. The manufacturer's representative is responsible for a defined territory, and the U.S. producer will usually sell to no other distributor in that territory. 1/ One manufacturer, for example, * * *. 2/ Manufacturer's representatives or manufacturer's warehouses stock pipe fittings (as well as other products) for large territories. The fittings are then sold to approximately 10,000 wholesalers across the country 3/ and are resold again to retailers (such as hardware stores) or directly to large end users (such as contractors). 4/

There are exceptions to the general statements presented above, as a review of the practices of domestic producers shows. Of the six U.S. producers of the products covered by these investigations, three sold exclusively to unrelated distributors in 1984. * * * sold all of its malleable cast-iron pipe fittings to unrelated distributors, but sold * * * percent of its nonmalleable fittings to unrelated end users. * * * sold approximately * * * percent of its U.S. production of nonmalleable fittings to unrelated distributors in 1984, and approximately * * * percent went to unrelated end users. All of * * *'s 1984 shipments of cast-iron pipe fittings went to * * *. The firm then sold * * * percent of these fittings to unrelated distributors and * * * percent to unrelated end users. 5/ All U.S. producers sell throughout the United States, maintaining warehouses in various locations and selling from inventory. 6/

The sole importer of record of Brazilian cast-iron pipe fittings, TUPY American Foundry Corp., sells all of its fittings through an unrelated distributor, Kuhns, Inc., which is also a U.S. producer of nonmalleable fittings. Kuhns sells its imported product to unrelated distributors as well as to plumbing contractors and hardware stores. 7/

Channels of distribution for malleable cast-iron pipe fittings imported from Korea tend to be similar to those for U.S.-produced fittings. Importers sell to wholesalers either directly or through firms that function as "manufacturers' representatives." Some importers of the Korean products have distribution systems limited to certain geographic areas. The Mundo Corp., which accounted for * * * percent of imports of malleable fittings from Korea in 1984, has operations concentrated in California and Texas. 8/ * * * directs most of its sales to the Southeastern United States. 9/ Other firms

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1/ Transcript of the conference, pp. 57-58.
2/ Conversation with * * *, Aug. 15, 1985.
3/ Ibid.
4/ Transcript of the conference, p. 57.
5/ Conversation with * * *, Aug. 20, 1985.
6/ Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-7.
7/ Ibid.
8/ Transcript of the conference, pp. 103-104.
9/ Conversation with * * *, Aug. 30, 1985.

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dealing in malleable fittings from Korea distribute nationwide. For example, * * * ships its imported products to its warehouses throughout the United States, from which the fittings are sold to wholesalers. 1/ * * * sells nationwide through 9 regional divisions. 2/ Questionnaire responses from importers of malleable fittings from Korea (accounting for 73 percent of such imports in 1984) indicated that 100 percent of importers' shipments of such fittings in 1984 were to unrelated distributors.

Channels of distribution for malleable fittings from Taiwan tend to be similar to those from Korea. Again, importers sell to wholesalers either directly or through "manufacturers' representatives," and some importers are large national distributors whereas others are smaller and focus their sales efforts on a local area. Sequoia International, Inc., for example, accounting for * * * percent of 1984 imports from Taiwan, distributes Plum brand fittings through representatives located throughout the country. 3/ On the other hand, * * * sells the bulk of its fittings in the southeastern United States. 4/ Questionnaire responses from importers of malleable fittings from Taiwan (accounting for 60 percent of such imports in 1984) indicated that 98 percent of importers' shipments of such fittings in 1984 were to unrelated distributors, whereas 2 percent were to unrelated end users.

Importers tend to sell nonmalleable fittings from Taiwan directly to end users * * * than malleable fittings are so sold. Questionnaire responses from importers of nonmalleable fittings from Taiwan (accounting for * * * percent of such imports in 1984) indicated that * * * percent of importers' shipments of such fittings in 1984 were to unrelated distributors, whereas * * * percent were to unrelated end users. Sprink, Inc., Division of All Points Traders, Inc., accounting for * * * percent of 1984 nonmalleable imports from Taiwan, sells its pipe fittings in different areas of the country. 5/

Market factors

The petitioner in these investigations argued that imported malleable and nonmalleable cast-iron pipe fittings directly compete with domestically manufactured fittings. Certain respondents argued that this is not so with respect to malleable fittings that imports are sold in a unique market niche in which domestic producers have not competed for many years. 6/ These respondents maintained that imports are sold to the residential construction industry and to hardware and do-it-yourself stores. Domestically produced fittings, on the other hand, are sold to the nonresidential construction industry and to other industrial users such as utilities.

1/ Conversation with * * *, Aug. 30, 1985.
2/ Conversation with * * *, Aug. 30, 1985.
3/ Transcript of the conference, p. 148.
4/ Conversation with * * *, Aug. 30, 1985.
5/ Transcript of the conference, p. 121.
6/ An importer of nonmalleable cast-iron pipe fittings conceded that its product competes directly with like domestically produced items. Transcript of the conference, p. 123. Brazilian imports were not included in this allegation

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Different importers had different theories as to why this market differentiation exists. The Mundo Corp. and the Korean producers argued that imports from Korea and Taiwan are of lower quality than U.S. fittings and are not manufactured to the established standards required for use in commercial construction and industry. Sequoia International, Inc., an importer of fittings from Taiwan, argued that its products are of the same quality as those manufactured in the United States but that they are prevented from participating strongly in the commercial market because of "Buy American" laws, because certain labor unions require domestically produced fittings, and because of many contractors' and companies' traditional practice of not buying imported fittings. In order to determine whether imported and U.S.-produced malleable cast-iron pipe fittings each serve segregated market segments, and whether differences in quality between imported and domestically produced fittings might be the cause of such segregation, the Commission staff contacted a variety of dealers in such fittings, 1/ as well as other sources of information.

In order to evaluate the allegations with respect to the issue of quality, the Commission staff contacted the relevant standards-developing organizations. The ANSI is a federation of standards-developing organizations. The institute provides its members with a consistent set of criteria for developing standards and, if the developed standards meet the criteria, they are promulgated as ANSI approved. The standards, as promulgated, are voluntary, but may be made mandatory by inclusion in building codes or contractors' specifications. The ASTM is a standards developer and a member of ANSI. 2/

Standards for cast-iron pipe fittings are ANSI standards developed under the auspices of the American Society of Mechanical Engineers. These standards cover such characteristics of the fittings as thickness and manner of threading, as well as methods of testing to determine if fittings meet the standard. Standards for the materials of which pipe fittings are composed are developed by the ASTM. Pipe fittings are not certified by the ANSI as having met its standards, and they are not marked as approved. It is up to individual contractors to ensure that fittings meet the specifications. Thus, testing of fittings is done by contractors or their suppliers. 3/ For example, * * * tests its malleable fittings that are imported from Korea against relevant standards. The * * * spokesman has "not heard of" any such fitting that has failed to meet the standards for sale to the industrial market. 4/

Descriptions vary regarding differences in quality among cast-iron pipe fittings. The * * * representative stated that Korean fittings are inferior to those produced in the United States. Quality problems include poor threading (causing a misaligned attachment to the pipe) and rough

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1/ The firms contacted were * * *. Information obtained from these firms is presented in the section entitled "Lost sales," and in app. D.

2/ Conversation with information office, ANSI, Aug. 30, 1985.

3/ Conversation with Mr. Paul Stumpf, American Society of Mechanical Engineers, Aug. 30, 1985.

4/ Conversation with * * *, Vice President and General Manager, * * *, Aug. 30, 1985.

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surfaces. 1/ Another observer pointed to quality problems with domestically produced fittings, citing sand holes, bad threads, and oil residue. 2/ A third spokesman echoed a number of similar views when he said that there are few quality issues: if "the thing stands up to pressure . . . it's of acceptable quality." 3/

In conversations with the Commission staff, four firms dealing in malleable imports from Korea 4/ expressed the view that such fittings are of lower quality than those manufactured in the United States, whereas one firm 5/ stated that fittings from the two sources are comparable in quality. Three firms dealing in malleable imports from Taiwan indicated that such imports are lower in quality than domestically produced fittings, whereas nine firms 6/ stated that the quality of Taiwan fittings is comparable with or better than that of U.S.-produced fittings. 7/

With respect to the issue of market segmentation, four firms dealing in malleable imports from Korea 8/ stated to the Commission staff that they sell such imports entirely or almost entirely to the residential/hardware store market. One firm, * * *, 9/ stated that it sells imports from Korea to both the residential and to the commercial/industrial markets. Seven firms dealing in malleable imports from Taiwan 10/ indicated that they sell such imports entirely or almost entirely to the residential/hardware store market, whereas six firms 11/ stated that they sell to both the residential and to the commercial/industrial markets or to only the industrial market. 12/

1/ Conversation with * * *, Vice President and General Manager, * * *, Aug. 30, 1985.

2/ Letter from The Dillon Co., Inc., Aug. 19, 1985.

3/ Conversation with * * *, Aug. 30, 1985.

4/ Includes two importers accounting for * * * percent of 1984 imports from Korea.

5/ An importer accounting for * * * percent of 1984 imports from Korea.

6/ Includes 4 importers accounting for 45 percent of 1984 imports from Taiwan.

7/ One firm that did not specify the source of its imports stated in general terms that imports from Korea and Taiwan are comparable in quality to U.S.-produced fittings. The same view was expressed by 2 firms that deal only in U.S.-produced fittings.

8/ Includes 2 importers accounting for * * * percent of 1984 imports from Korea.

9/ Accounting for * * * percent of 1984 imports from Korea.

10/ Includes 3 importers accounting for 39 percent of 1984 imports from Taiwan.

11/ Includes 1 importer accounting for * * * percent of 1984 imports from Taiwan.

12/ 1 firm which did not specify the source of its imports stated in general terms that imports from Korea and Taiwan are sold to the same markets as U.S.-produced fittings. A similar view was expressed by two firms that deal only in U.S.-produced fittings, one of which explained that certain customers (particularly in the steel and auto industries) will buy only U.S.-made fittings.

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The U.S. Industry

Six firms in the United States produce products like those covered by this investigation. ITT Grinnell Corp. (a subsidiary of ITT Corp.), headquartered in Providence, RI, produces malleable fittings at a plant in Columbia, PA, and nonmalleable fittings at a plant in Statesboro, GA. Kuhns, Inc., manufactured nonmalleable cast-iron pipe fittings from 1887 until 1974, when the firm sold its foundry in Dayton, OH, to the NIPCO Corp. Kuhns repurchased the foundry in 1982, commencing production on September 1, 1982. 1/ Stanley G. Flagg & Co., Inc. (a subsidiary of Amcast Industrial Corp.), has one plant, located in Stowe, PA, which produces both malleable and nonmalleable cast-iron pipe fittings. Stockham Valves & Fittings Co. produces both malleable and nonmalleable cast-iron pipe fittings in its plant in Birmingham, AL. U-Brand Corp. (a subsidiary of Worthington Industries, Inc.) produces both malleable and nonmalleable cast-iron pipe fittings in its foundry in Ashland, OH. Ward Foundry Division of Clevepak Corp. also manufactures both malleable and nonmalleable cast-iron pipe fittings at a plant in Blossburg, PA.

The shares of U.S. production and apparent U.S. consumption accounted for by each firm in 1984 are presented in table 2. * * * is the largest producer,

Table 2.--Certain cast-iron pipe fittings: U.S. producers' shares of U.S. production and apparent U.S. consumption, by types, 1984

(In percent)

Firm	Malleable	Nonmalleable	Total
	Share of U.S. production		
ITT Grinnell Corp	***	***	***
Kuhns, Inc	***	***	***
Stanley G. Flagg & Co., Inc	***	***	***
Stockham Valves & Fittings Co	***	***	***
U-Brand Corp	***	***	***
Ward Foundry Division	***	***	***
Total	100.0	100.0	100.0
	Share of apparent U.S. consumption		
ITT Grinnell Corp	***	***	***
Kuhns, Inc	***	***	***
Stanley G. Flagg & Co., Inc	***	***	***
Stockham Valves & Fittings Co	***	***	***
U-Brand Corp	***	***	***
Ward Foundry Division	***	***	***
Total	66.7	80.6	72.2

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and official statistics of the U.S. Department of Commerce.

1/ Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-8.

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and holds the largest share of the U.S. market, for * * * cast-iron pipe fittings.

With the exception of Kuhns, each of the firms has been producing cast-iron pipe fittings for at least 35 years and offers an essentially complete line of fittings. 1/ Clevepak Corp. has been attempting to sell its Ward Foundry operation since October 8, 1984. 2/ On January 17, 1985, The Wall Street Journal reported that ITT Corp. considers ITT Grinnell a candidate for divestiture. 3/

One U.S. producer is also an importer of the merchandise covered by these investigations. U-Brand Corp. imports malleable cast-iron pipe fittings from Korea. Its imports of such fittings accounted for * * * percent of all such imports from Korea in 1984 and * * * percent in January-June 1985. As a share of all imports of malleable fittings, U-Brand accounted for * * * percent in 1984 and * * * percent in January-June 1985. 4/ Another U.S. producer, though not an importer, is the exclusive distributor of imported goods from Brazil. Kuhns, Inc., purchases all of the imports of TUPY American Foundry Corp., the importer of record. * * *. 5/

U.S. Importers

Brazil

The principal U.S. importer of record of cast-iron pipe fittings from Brazil is TUPY American Foundry Corp. of Lancaster, PA. 6/ TUPY American Foundry Corp. is a wholly owned subsidiary of Fundicao TUPY, S.A., of Joinville, Brazil, a producer and exporter of cast-iron pipe fittings.

Korea

Approximately 20 U.S. firms import cast-iron pipe fittings from Korea, but most of these firms account for only a small percentage of all such

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1/ Malleable Cast-Iron Pipe and Tube Fittings, . . . investigation No. TA-201-26, USITC Publication 835, September 1977, p. A-12; Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-8.

2/ Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-8; transcript of the conference, p. 40.

3/ The Wall Street Journal, Jan. 17, 1985, p. 3.

4/ Data describing the U.S. industry not including U-Brand Corp. are presented in app. E.

5/ Letter from counsel for TUPY American Foundry Corp. and Kuhns, Inc. to the Commission, in inv. No. TA-701-221 (Final), Mar. 25, 1985, p. 2.

6/ An importer's questionnaire received from * * * reveals that they imported * * * short tons of malleable cast-iron pipe fittings from TUPY in Brazil. Comparing importers' questionnaires to official statistics shows that TUPY American Foundry's share of such imports from Brazil was * * * percent in 1984, whereas * * *'s comparable share was * * * percent.

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imports. Four firms responding to the Commission's importer's questionnaire reported imports of malleable cast-iron pipe fittings in 1984, accounting for 73 percent of such imports as presented by official statistics. * * *, the Mundo Corp., which accounted for * * * percent of imports of malleable cast-iron pipe fittings from Korea in 1984, made a statement at the conference in connection with these investigations. * * *, U-Brand Corp., which accounted for * * * percent of imports of such fittings in 1984, is a U.S. producer.

Taiwan

Approximately 50 U.S. firms import cast-iron pipe fittings from Taiwan. Eighteen of these firms responded to the Commission's importer's questionnaire with respect to malleable cast-iron pipe fittings, reporting imports in 1984 that accounted for 60 percent of such imports as presented by official statistics. Seven of these 18 firms imported comparatively large quantities of malleable fittings in 1984, accounting for 55 percent of such imports as presented by official statistics. * * *, Sequoia International, Inc., which accounted for * * * percent of such imports, appeared as a respondent in these investigations.

Three firms responded to importer's questionnaires with respect to nonmalleable cast-iron pipe fittings, reporting imports in 1984 that accounted for * * * percent of such imports as presented by official statistics. * * *, Sprink, Inc. Division of All Points Traders, Inc., which accounted for * * * percent of such imports, appeared as a respondent in these investigations.

The Foreign Industries

Brazil 1/

Fundicao TUPY, S.A., is the Brazilian manufacturer of cast-iron pipe fittings that accounts for all exports of such fittings to the United States. TUPY, S.A., located in Joinville, Brazil, began manufacturing cast-iron pipe fittings in 1938.

Brazil's total exports of malleable cast-iron pipe fittings * * * from 1982 to 1984 (table 3). Similarly, exports to countries other than the United States, principally in Europe and the Middle East, * * * from 1982 to 1984. Exports to the United States in 1983 were * * * such exports in 1982 and * * * from 1983 to 1984. Such exports accounted for * * * percent of total exports in 1982 and * * * percent in 1983 and 1984.

Table 3.--Certain cast-iron pipe fittings: Brazilian production, capacity, and shipments of malleable fittings, 1982-84, January-June 1984, and January-June 1985

* * * * * * *

1/ Data on the Brazilian industry were compiled from information provided by counsel for Fundicao TUPY, S.A.

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Home-market sales * * * from 1982 to 1983 and * * * from 1983 to 1984. Such sales accounted for * * * percent of total sales in 1982, * * * percent in 1983, and * * * percent in 1984. Total sales * * * by * * * percent during 1982-83 and by * * * percent during 1983-84.

TUPY's reported capacity to produce cast-iron pipe fittings * * * from 1982 to 1983 and then * * * from 1983 to 1984. Total sales of cast-iron pipe fittings as a share of capacity dedicated to the production of such products * * * from * * * percent in 1982 to * * * percent in 1983 and * * * percent in 1984.

TUPY maintains four foundries, each of which is dedicated to the production of a specific range of products. One foundry produces automotive engine cylinder blocks and heads, a second produces various automotive castings, a third produces automotive castings and nonmalleable pipe fittings on separate lines, and a fourth produces only malleable pipe fittings. 1/ As a share of total capacity, TUPY has dedicated * * * percent of its capacity to cast-iron pipe fittings, * * * percent to automotive engine blocks and cylinder heads, and * * * percent to other automotive castings such as differential housings, brake drums, and crankshafts.

In the course of investigation No. 701-TA-221, TUPY alleged that it would be uneconomical to divert capacity dedicated to automotive castings to pipe fittings owing to differences in materials and equipment used to produce each type of casting. For example, the machinery used to produce cylinder blocks could not be used to produce pipe fittings, because the two castings are of different sizes. Although the same melting furnaces could be used to produce either automotive castings or pipe fittings, the starting materials for each of these castings are different. Therefore, the melts would have to take place at different times.

Korea

There are reportedly two large firms in Korea that produce cast-iron pipe fittings for export. * * *. 2/ These two firms provided the Commission with data on their malleable cast-iron pipe fitting operations, 3/ which show * * * production and shipments since 1983 (table 4).

Production by these Korean firms * * *, from * * * tons in 1982 to * * * tons in 1983. Production then * * * in 1984, * * *, and * * * in 1985, reaching * * * tons in January-June 1985, * * * the corresponding period of 1984.

1/ Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-10.

2/ Conversation with counsel for the Korean manufacturers, Sept. 3, 1985.

3/ Data include only malleable fittings that are advanced in condition, classified under TSUS item 610.74. Such fittings account for over 90 percent of imports of malleable cast-iron pipe fittings from Korea.

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Table 4.--Certain cast-iron pipe fittings: Korean production, capacity, and shipments of malleable fittings, 1982-84, January-June 1984, and January-June 1985

* * * * * * *

Korean firms' capacity to produce malleable pipe fittings * * *, so that capacity utilization levels were * * * during 1982-84. Capacity utilization * * * between January-June 1984 and January-June 1985, from * * * percent to * * * percent.

Total shipments reported by the Korean firms * * *. Shipments were * * * than production in 1982, * * * than production in 1983 and 1984, and * * * in January-June 1985, suggesting that the firms' inventories (which were not separately reported) * * * over the period of investigation. Shipments by these firms to their domestic market accounted for * * * percent of total shipments in 1982, * * * percent in 1983, and * * * percent in 1984, yet the volume of home-market shipments * * * in 1983 and 1984. In January-June 1985, both the volume of such shipments and their share of total shipments * * * as compared with data for the corresponding period of 1984.

Exports to the United States of malleable cast-iron pipe fittings by the two reporting Korean producers * * * from * * * tons in 1982 to * * * tons in 1984, or by almost * * * percent over the period. At the same time, the share of total shipments exported to the United States * * * from * * * percent in 1982 to * * * percent in 1983, and then * * * to * * * percent in 1984. In January-June 1985, the volume of exports to the United States * * * by * * * percent compared with that in the corresponding period of 1984, * * * the share of total shipments exported to the United States * * *, from * * * percent in January-June 1984 to * * * percent in January-June 1985. The two Korean firms' exports to other countries were consistently * * * than those to the United States until January-June 1985. From * * * percent of total shipments in 1982, exports to other countries * * * to * * * percent of total shipments in 1983, and then * * * to * * * percent in 1984 and * * * percent in January-June 1985.

Taiwan

There are reportedly 25 firms that produce malleable cast-iron pipe fittings in Taiwan. Six of these firms have provided data to the Commission on their operations producing malleable cast-iron pipe fittings. These six firms accounted for an estimated * * * percent of the Taiwan industry's total production in 1984.

Production of malleable fittings increased for the six reporting firms by 28 percent from 1982 to 1983, reaching 25,615 tons in 1983 (table 5). Production then increased by 4 percent in 1984. Data for January-June 1984 are not available; however, if January-June 1985 data are annualized, production in 1985 appears down by 9 percent from that in 1984. Data on capacity were reported by * * * firms that accounted for * * * percent of

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Table 5.--Certain cast-iron pipe fittings: Taiwanese 1/ production, capacity, and shipments of malleable fittings, and employment in the Taiwanese industry, 1982-84, January-June 1984, and January-June 1985

Item	1982	1983	1984	January-June--	
				1984	1985
Production--short tons	20,058	25,615	26,694	2/	12,134
Capacity 3/--------do----	***	***	***	2/	***
Capacity utilization: 4/ percent--	57.8	74.0	81.1	2/	77.0
Shipments:					
Home market short tons--	2,631	2,301	2,088	2/	1,001
Exported to--					
The United States short tons--	2,830	4,177	4,173	2/	2,204
Other countries short tons--	14,631	19,609	19,952	2/	8,981
Total--------do----	20,092	26,087	26,213	2/	12,186
Employment----------	1,511	1,569	1,479	2/	1,354

1/ Data are for 6 firms, accounting for an estimated * * * percent of 1984 production of the Taiwanese industry.

2/ Not available.

3/ Data are for * * * firms.

4/ Ibid.

Source: Compiled from data submitted by counsel for the Taiwanese manufacturers.

total reported production in 1984. For these * * * firms, capacity utilization levels increased from 57.8 percent in 1982 to 74.0 percent in 1983, and then to 81.1 percent in 1984. Capacity utilization declined in January-June 1985 to 77.0 percent.

The reporting firms' shipments of malleable fittings to their home market accounted for a declining share of their total shipments from 1982 to 1984. Home market shipments totaled 2,631 tons in 1982, or 13 percent of total shipments, and 2,088 tons in 1984, or 8 percent of total shipments. Home market shipments as a share of total shipments remained at 8 percent in January-June 1985.

Exports to the United States accounted for 14 percent of total shipments of malleable fittings in 1982, and this share increased to 16 percent in 1983 and 1984, and 18 percent in January-June 1985. Exports to other countries consistently took a majority of the reporting firms' shipments. Such exports amounted to 73 percent of total shipments in 1982, 75 percent in 1983, 76 percent in 1984, and 74 percent in January-June 1985.

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Employment in the firms that reported data on malleable fittings grew from 1,511 employees in 1982 to 1,569 in 1983, and then declined to 1,479 in 1984 and to 1,354 in January-June 1985. A gross measure of productivity, tons produced per worker, shows productivity increasing from 13 tons in 1982 to 16 tons in 1983, 18 tons in 1984, and (at an annualized rate) 18 tons in January-June 1985.

The Commission received information regarding one firm in Taiwan, Tai Hau Iron & Steel Co., which produces nonmalleable cast-iron pipe fittings. This firm's production of nonmalleable fittings * * * by Sprink, Inc., Division of All Points Traders, Inc., a respondent in these investigations. 1/ * * * Tai Hau's production is sold to Sprink, which in turn imports * * * to the United States (* * *). In May 1985, Tai Hau produced * * * tons of nonmalleable fittings. The firm also produced * * * tons of other cast-iron forms, and * * * tons of scrap cast-iron. The firm's reported capacity to produce all cast-iron products is * * * tons per month, putting the capacity utilization rate for May 1985 at * * * percent. Tai Hau employs * * * people in its factory and machine shop, and * * * people altogether. Its reported capitalization is $* * *, of which * * * percent is paid-in capital, * * * percent is the plant site, * * * percent is buildings, and * * * percent is equipment.

The Question of Material Injury

In order to evaluate the condition of the U.S. industry producing nonalloy, malleable, threaded cast-iron pipe fittings and nonalloy, nonmalleable, threaded and flanged cast-iron pipe fittings, the Commission surveyed all known U.S. producers of such items. These producers are the six firms discussed above in the section entitled "The U.S. Industry." 2/ The

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1/ Conversation with counsel for Sprink, Inc., Aug. 28, 1985.

2/ Certain U.S. producers produce other products that, although they are not covered by these investigations, may in certain circumstances compete directly with the products covered by these investigations. For example, nonalloy, malleable, threaded cast-iron pipe fittings may compete directly with nonalloy, malleable, grooved cast-iron pipe fittings. Grooved fittings are clamped to the pipe, as opposed to threaded fittings which require turning both the fitting and the pipe. Grooved fittings thus save labor, especially when working at a height or with large-sized pipe. Crooved fittings are reportedly most competitive in larger sizes, and threaded fittings are best used in smaller sizes. (Conversation with * * *, Aug. 9, 1985). In certain circumstances, grooved fittings compete directly with threaded fittings (transcript of the conference, p. 59), especially with pipe sizes of between 2 to 4 inches in diameter (Conversation with * * *, Aug. 8, 1985). Such competition may be characterized as "peripheral," occurring in "very limited circumstances" (letter from counsel for petitioner, Aug. 27, 1985).

Three U.S. producers that produce malleable, threaded cast-iron pipe fittings also produce malleable grooved cast-iron pipe fittings: ITT Grinnell Corp., Stockham Valves & Fittings, Inc., and Ward Foundry. Both threaded and grooved fittings can be made on the same production line, at the same time, using the same personnel. This is done, for example, at * * *. (Conversation with * * *, Aug. 14, 1985). No respondent has challenged the exclusion of grooved pipe fittings from these investigations.

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following information describing the condition of this industry includes all six producers, unless otherwise noted.

U.S. production, capacity, and capacity utilization 1/

U.S. production of the cast-iron pipe fittings covered by these investigations declined from 1982 to 1983, increased from 1983 to 1984, and then declined in January-June 1985 compared with that in the corresponding period of 1984 (table 6). 2/ Production of both malleable and nonmalleable fittings followed the same trend through 1984: malleable fittings dropped by 8 percent in 1982-83 and increased by 4 percent in 1983-84; nonmalleable fittings dropped by 9 percent in 1982-83 and increased by 6 percent in 1983-84. In January-June 1985, however, their trend lines diverged: production of malleable fittings declined by 11 percent from January-June 1984 to January-June 1985, while that of nonmalleable fittings increased by 7 percent.

Capacity to produce malleable fittings remained constant during 1982-84 and during January-June of 1984 and 1985. The same was true for nonmalleable

Table 6.--Certain cast-iron pipe fittings: U.S. production, capacity, and capacity utilization, by types, 1982-84, January-June 1984, and January-June 1985

Item	1982	1983	1984	January-June	
				1984	1985
Production:					
Malleable--short tons	48,020	44,368	46,126	25,665	22,719
Nonmalleable-----do----	34,871	31,821	33,634	17,970	19,259
Total----------do----	82,891	76,189	79,760	43,635	41,978
Capacity:					
Malleable--------do----	95,260	95,260	95,260	48,590	48,590
Nonmalleable-----do----	59,400	62,100	62,100	31,550	31,550
Total----------do----	154,660	157,360	157,360	80,140	80,140
Capacity utilization:					
Malleable-----percent--	50.4	46.6	48.4	52.8	46.8
Nonmalleable-----do----	58.7	51.2	54.2	57.0	61.0
Average--------do----	53.6	48.4	50.7	54.4	52.4

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

1/ Data on the U.S. industry not including U-Brand Corp. are presented in app. E.

2/ In investigation No. 701-TA-221, the industry reported slightly higher production of malleable fittings (1 percent higher in 1983 and 4 percent in 1984) and * * * production of nonmalleable fittings (* * * in 1983, * * * in 1984). These differences do not affect general trends.

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fittings, except that capacity increased by 5 percent from 1982 to 1983, * * *. Capacity utilization in the production of malleable fittings decreased from 50.4 percent in 1982 to 46.6 percent in 1983 and then rose to 48.4 percent in 1984. In January-June 1985, capacity utilization was 46.8 percent, down by 6 percentage points from that in January-June 1984. The utilization rate for production of nonmalleable fittings declined from 58.7 percent in 1982 to 51.2 percent in 1983 and then increased to 54.2 percent in 1984. This rate rose in January-June 1985 to reach 61.0 percent--4 percentage points above the rate in January-June 1984. 1/

U.S. producer's domestic shipments, exports, and inventories 2/

The trends for domestic shipments of cast-iron pipe fittings were similar to those already noted for production. Domestic shipments of malleable fittings declined by 8 percent in 1982-83, increased by 6 percent in 1983-84, and finally declined by 6 percent in January-June 1985 compared with those in the corresponding period of 1984 (table 7). Nonmalleable fittings' shipments fell by 10 percent in 1982-83, rose by 12 percent in 1983-84, and then continued to increase in January-June 1985, climbing 7 percent above those in January-June 1984.

Exports of malleable cast-iron pipe fittings averaged * * * percent of total shipments of such fittings over the period of investigation. By comparison, only about * * * percent of total shipments of nonmalleable fittings were exported. Exports of malleable fittings increased each year from 1982 to 1984 but declined from January-June 1984 to January-June 1985. Nonmalleable fittings followed the opposite trend: exports of such fittings declined over 1982-84 but increased from January-June 1984 to January-June 1985.

Inventories of both malleable and nonmalleable cast-iron pipe fittings declined, in nominal terms and as a percentage of total shipments, each year over the period of investigation. As a percentage of total shipments, inventories of malleable fittings fell by * * * percentage points, from 34.8 percent in 1982 to * * * percent in 1984, and fell again by 8 percentage points, from * * * percent in January-June 1984 to * * * percent in the corresponding period of 1985. The decline in inventories as a share of shipments of nonmalleable fittings was sharper. Such ratios fell by 12 percentage points, from * * * percent in 1982 to * * * percent in 1984, and then fell by 21 percentage points, from * * * percent in January-June 1984 to * * * percent in January-June 1985.

1/ In investigation No. 701-TA-221, the industry reported * * * capacity levels for production of both malleable and nonmalleable fittings (* * * in 1982, 1983, and 1984). Capacity utilization rates found in investigation No. 701-TA-221 were * * * than those reported in these investigations (for malleable fittings, 1 percent higher in 1983 and 3 percent in 1984; for nonmalleable fittings, * * *).

2/ Data on the U.S. industry not including U-Brand Corp. are presented in app. E.

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Table 7.--Certain cast-iron pipe fittings: U.S. producers' domestic shipments, exports, total shipments, and end-of-period inventories, by types, 1982-84, January-June 1984, and January-June 1985

Item	1982	1983	1984	January-June--	
				1984	1985
Domestic shipments:					
Malleable--short tons	47,250	43,322	45,891	23,077	21,726
Nonmalleable-----do---	35,949	32,512	36,446	17,636	18,929
Total-----do---	83,199	75,834	82,337	40,713	40,655
Exports:					
Malleable-------do----	2,211	2,387	***	***	***
Nonmalleable-----do----	***	***	***	***	***
Total----------do----	***	***	***	***	***
Total shipments:					
Malleable-------do----	49,461	45,709	***	***	***
Nonmalleable-----do----	***	***	***	***	***
Total----------do----	***	***	***	***	***
Inventories:					
Malleable-------do----	17,226	15,884	13,699	16,445	13,634
Nonmalleable-----do----	14,814	13,734	10,363	13,303	10,237
Total----------do----	32,040	29,618	24,062	29,748	23,871
Ratio of inventories to total shipments:					
Malleable-----percent--	34.8	34.8	***	***	***
Nonmalleable-----do----	***	***	***	***	***
Average-----do----	***	***	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

U.S. producers' domestic purchases and imports

Two U.S. producers sell significant quantities of imported cast-iron pipe fittings: Kuhns, Inc., which deals in malleable and nonmalleable Brazilian fittings, 1/ and U-Brand Corp., which handles malleable Korean fittings. 2/ Three U.S. producers purchased domestically produced cast-iron pipe fittings during 1982-83, and two continued to do so through January-June 1985, but the magnitude of such purchases declined. Data on these imports and domestic purchases are presented in table 8.

1/ Although Kuhns purchases both malleable and nonmalleable fittings imported from Brazil, it produces only nonmalleable fittings. Nonmalleable fittings from Brazil are not a subject of these investigations.

2/ U-Brand's imports of malleable fittings from Korea and its U.S. production of malleable fittings are compared in the following tabulation:

* * * * * * *

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Table 8.--Certain cast-iron pipe fittings: U.S. producers' imports (or domestic purchases of imports) and purchases of domestic production, by types and specified countries, 1982-84, January-June 1984, and January-June 1985

* * * * * * *

U.S. producers' imports and domestic purchases of cast-iron pipe fittings have remained at relatively low levels as a share of production by these producers, as the following tabulation demonstrates:

* * * * * * *

Employment and productivity 1/

The average number of production and related workers in the U.S. industry followed approximately the same trends as have already been seen for production and shipments of malleable and nonmalleable cast-iron pipe fittings (table 9). The number of workers producing malleable fittings declined by 13 percent from 1982 to 1983, increased by 8 percent from 1983 to 1984, and then dropped by 11 percent in January-June 1985 compared with the number in January-June 1984. During 1982-83, the number of workers producing nonmalleable fittings fell by 8 percent and then climbed by 3 percent through the end of 1984, and by 3 percent again in January-June 1985 compared with the number in January-June 1984. 2/

Although the number of workers producing malleable cast-iron pipe fittings increased in 1984, the number of hours worked by such workers did not. Hours worked by such workers continued to fall in January-June 1985. Only workers producing nonmalleable fittings saw increases in hours worked in 1984 and January-June 1985, and at a rate proportionally higher than the rate of increase in the number of workers. 3/

The amounts of wages 4/ and total compensation 5/ paid to production and related workers producing malleable cast-iron pipe fittings conformed to the same general trends seen above for the number of such workers--a 1982-83 decline, a 1983-84 increase, and a decline from January-June 1984 to January-June 1985. Wages and total compensation paid to producers of

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1/ Data on the U.S. industry not including U-Brand Corp. are presented at app. E.

2/ * * * did not provide separate data for malleable and nonmalleable fittings. * * * primarily malleable fittings, and all production workers are included in that category.

3/ * * * did not separate data for malleable and nonmalleable fittings. * * *'s data are not separated during 1982-84, but are separated in the interim periods. Unseparated data are included in the malleable category.

4/ See note 3, above.

5/ * * * did not provide separate data for malleable and nonmalleable fittings. Unseparated data are included in the malleable category.

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Table 9.--Average number of employees, total and production and related workers, in establishments producing certain cast-iron pipe fittings, hours worked by such workers, and wages, total compensation, and hourly compensation paid to such workers, by types, 1982-84, January-June 1984, and January-June 1985

Item	1982	1983	1984	January-June	
				1984	1985
All employees	5,447	4,981	5,252	5,075	4,956
Production and related workers producing-- 1/					
Malleable	2,213	1,935	2,089	2,104	1,866
Nonmalleable	705	651	673	679	699
Total	2,918	2,586	2,762	2,783	2,565
Hours worked by production and related workers producing-- 2/					
Malleable 1,000 hours	4,085	3,591	3,368	1,719	1,507
Nonmalleable do	1,161	1,136	1,250	705	756
Total do	5,246	4,727	4,618	2,424	2,263
Wages paid to production and related workers producing-- 2/					
Malleable					
1,000 dollars	33,256	32,537	34,149	16,193	14,057
Nonmalleable do	8,864	9,298	10,234	6,166	6,353
Total do	42,120	41,835	44,383	22,359	20,410
Total compensation paid to production and workers producing-- 3/					
Malleable					
1,000 dollars	39,455	38,633	38,862	19,432	17,113
Nonmalleable do	12,845	14,062	15,732	7,657	8,011
Total do	52,300	52,695	54,594	27,089	25,124
Hourly compensation paid to production and related workers producing-- 4/					
Malleable	$9.80	$11.11	$12.33	$11.30	$11.36
Nonmalleable	9.00	10.25	10.73	10.86	10.60
Average	9.58	10.85	11.82	11.18	11.10

1/ * * * did not provide separate data for malleable and nonmalleable fittings. * * * primarily malleable fittings, and all production workers are included in that category.

2/ * * * did not separate data for malleable and nonmalleable fittings. * * *'s data are not separated during 1982-84, but are separated in the interim periods. Unseparated data are included in the malleable category.

3/ * * * did not provide separate data for malleable and nonmalleable fittings. Unseparated data are included in the malleable category.

4/ Calculated excluding data of * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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nonmalleable fittings increased each year from 1982 to 1984 and again from January-June 1984 to January-June 1985. Hourly wages paid to production and related workers producing both malleable and nonmalleable fittings increased during each comparative period of the investigation. 1/

The productivity of workers producing malleable fittings increased over the period of investigation whereas that of workers producing nonmalleable fittings generally declined (except in January-June 1985). The following tabulation, compiled from data submitted in response to Commission questionnaires, presents productivity of the U.S. industry, expressed in terms of shorts tons produced per 1,000 hours worked:

				January-June--	
	1982	1983	1984	1984	1985
Malleable	12.6	13.1	14.7	15.0	15.2
Nonmalleable	27.1	25.8	22.7	25.2	25.3
Average	15.8	16.1	17.3	18.0	18.5

Ninety-one percent of the production and related workers producing the products under investigation are represented by labor unions. This figure includes 2,329 workers at * * * firms that produce cast-iron pipe fittings. Two unions represent the workers: the United Steel Workers of America and the International Molders & Allied Workers Union (AFL-CIO).

Three producers reported significant layoffs during 1982-84. All of the layoffs were attributed to decreased orders. The dates of each layoff and the number of workers involved are shown in the following tabulation:

* * * * * * *

Financial experience of U.S. producers

Four firms, accounting for 89 percent of reported U.S. production of malleable cast-iron pipe fittings in 1984, furnished usable income-and-loss data concerning both their overall establishment operations and their operations producing malleable cast-iron pipe fittings alone. 2/ Three of these firms, accounting for 83 percent of reported U.S. production of nonmalleable cast-iron pipe fittings in 1984, supplied usable income-and-loss data relative to their nonmalleable cast-iron pipe fittings operations. 3/

Overall establishment operations.--Net sales of all products produced in the establishments within which cast-iron pipe fittings are produced declined from $284 million in 1982 to $261 million in 1983, or by 8 percent, and then rose by 18 percent to $309 million in 1984 (table 10). Net sales were $172 million during the interim period ended June 30, 1985, compared with net sales of $175 million during the corresponding period of 1984. Operating income declined annually during 1982-84, from $30.8 million, or 10.8 percent of net sales, to $15.2 million, or 4.9 percent of net sales. Operating income

1/ Hourly wages are calculated excluding the data of * * *.
2/ * * *.
3/ * * *.

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Table 10.- Income-and-loss experience of 4 U.S. producers on the overall operations of their establishments within which cast-iron pipe fittings are produced, accounting years 1982-84, interim 1984, and interim 1985 1/

Item	1982	1983	1984	Interim period ended June 30--	
				1984	1985
Net sales-----1,000 dollars--	284,011	261,370	308,724	174,871	171,648
Cost of goods sold 1,000 dollars--	216,063	207,643	253,228	142,929	139,020
Gross income----------do----	67,948	53,727	55,496	31,942	32,628
General, selling, and administrative expenses 1,000 dollars--	37,168	36,402	40,292	21,141	24,182
Operating income--------do----	30,780	17,325	15,204	10,801	8,446
Other income or (expense), net 2/-------1,000 dollars--	(7,964)	(6,530)	(5,501)	***	***
Net income before income taxes--------1,000 dollars--	22,816	10,795	9,703	***	***
Depreciation and amortization 1,000 dollars--	13,541	14,537	14,991	***	***
Cash flow----------do----	36,357	25,332	24,694	14,824	12,965
Ratio to net sales of--					
Gross income------percent--	23.9	20.5	18.0	18.3	19.0
Operating income------do----	10.8	6.6	4.9	6.2	4.9
Net income before income taxes----------percent--	8.0	4.1	3.1	***	***
Cost of goods sold----do----	76.1	79.5	82.0	81.7	81.0
General, selling, and administrative expenses percent--	13.1	13.9	13.1	12.1	14.1
Number of firms reporting--					
Operating losses----------	0	1	1	1	0
Net losses before taxes-----	0	1	0	0	0

1/ Data include * * *.
2/ Data are for 3 firms.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Continued to decline during interim 1985, to $8.4 million, or 4.9 percent of net sales, compared with an operating income of $10.8 million, or 6.2 percent of net sales, during the corresponding period of 1984. Net income before income taxes followed the same trend as operating income during the reporting period, falling from 8.0 percent of net sales in 1982 to 3.1 percent in 1984 and to * * * percent of net sales during interim 1985 compared with * * * percent during the corresponding period of 1984. One firm sustained operating losses in 1983 and 1984. The same firm also sustained a net loss in 1983.

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Malleable cast-iron pipe fittings. 1/--Net sales of malleable cast-iron pipe fittings followed the same trend as total establishment net sales during 1982-84, dropping from $117 million to $101 million between 1982 and 1983 and then rising by 11 percent, to $112 million, in 1984 (table 11). Net sales declined to $54.8 million during interim 1985, compared with net sales of $58.3 million during the corresponding period of 1984.

Table 11.--Income-and-loss experience of 4 U.S. producers on their operations producing malleable cast-iron pipe fittings, accounting years 1982-84, interim 1984, and interim 1985 1/

Item	1982	1983	1984	Interim period ended June 30--	
				1984	1985
Net sales------1,000 dollars--	116,964	101,377	112,430	58,352	54,780
Cost of goods sold 1,000 dollars--	90,774	82,665	95,663	49,463	46,266
Gross income----------do----	26,190	18,712	16,767	8,889	8,514
General, selling, and administrative expenses 1,000 dollars--	16,623	15,882	17,202	8,591	9,431
Operating income or (loss) 1,000 dollars--	9,567	2,830	(435)	298	(917)
Other income or (expense), net 2/-------1,000 dollars--	***	***	***	***	***
Net income or (loss) before income taxes 1,000 dollars--	***	***	***	***	***
Depreciation and amortization 1,000 dollars--	***	***	***	***	***
Cash flow----------do----	10,026	4,447	1,614	1,776	926
Ratio to net sales of--					
Gross income--------percent--	22.4	18.5	14.9	15.2	15.5
Operating income or (loss) percent--	8.2	2.8	(.4)	.5	(1.7)
Net income or (loss) before income taxes----percent--	***	***	***	***	***
Cost of goods sold----do----	77.6	81.5	85.1	84.8	84.5
General, selling, and administrative expenses percent--	14.2	15.7	15.3	14.7	17.2
Number of firms reporting--					
Operating losses----------	1	2	2	1	4
Net losses before taxes-----	1	2	2	2	4

1/ Data include * * *.
2/ Data are for 2 firms.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

1/ Data on the U.S. industry not including U-Brand Corp. are presented at app. E.

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Operating income followed a different trend than net sales during 1982-84. Such income decreased markedly from $9.6 million, or 8.2 percent of net sales, in 1982 to $2.8 million, or 2.8 percent of net sales, in 1983. In 1984, the four reporting firms sustained an aggregate operating loss of $435,000, or 0.4 percent of net sales. These firms sustained an operating loss of $917,000, of 1.7 percent of net sales, during interim 1985, compared with an operating income of $298,000, or 0.5 percent of net sales, during the corresponding period of 1984.

The four reporting firms posted net income before income taxes equal to * * * percent of net sales in 1982. In 1983 and 1984, they * * * of net sales, respectively. The four firms * * * of net sales during interim 1985, compared with * * * of net sales during the corresponding period of 1984.

One firm sustained an operating and net loss in 1982, and two firms sustained such losses in 1983 and 1984. Each of the four reporting firms sustained an operating and net loss during interim 1985, whereas only one firm sustained an operating loss and two firms sustained net losses during the corresponding period of 1984.

In the aggregate, the four firms reported positive cash flows in each of the reporting periods. During 1982-84, cash flow ranged downward from $10.0 million in 1982 to $1.6 million in 1984. Cash flow totaled $926,000 during interim 1985 compared with a cash flow of $1.8 million during the corresponding period of 1984. As a share of net sales, manufacturing costs (costs of goods sold) and general, selling, and administrative expenses were up in 1983 and 1984. As a share of net sales, manufacturing costs declined slightly during interim 1985, but general, selling, and administrative expenses rose during this period.

Nonmalleable cast-iron pipe fittings.--Net sales of nonmalleable cast-iron pipe fittings also followed the same trend as total establishment net sales during 1982-84, dropping from $54.6 million to $46.5 million between 1982 and 1983, and then rising by 12 percent to $52.2 million in 1984 (table 12). Net sales were * * * during interim 1985, up 7 percent from the * * * in net sales reported in interim 1984.

During 1982-84, operating income declined annually from $5.4 million, or 10.0 percent of net sales, to $360,000, or 0.7 percent of net sales. Operating income rose to * * *, or * * * percent of net sales, during the interim period ended June 30, 1985, compared with an operating income of * * *, or * * * percent of net sales, during the corresponding period of 1984.

The three reporting firms posted net income before income taxes of * * * in 1982. In 1983 and 1984, they * * *. The three firms posted a net income of * * *, during interim 1985, compared with * * *, during the corresponding period of 1984. One firm sustained operating and net losses in 1982 and 1983, and another firm had an operating loss in 1984 and net losses in 1983 and 1984.

In the aggregate, the three firms posted positive cash flows in each of the reporting periods, ranging downward from $6.7 million in 1982 to $2.1 million in 1984. The reported cash flow was $1.8 million during interim 1985, compared with $1.3 million during the corresponding period of 1984. As a share of net sales, the cost of goods sold rose annually from 73.6 percent to 82.7 percent during 1982-84. Cost of goods sold dipped to * * * percent of

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Table 12.--Income-and-loss experience of 3 U.S. producers on their operations producing nonmalleable cast-iron pipe fittings, accounting years 1982-84, interim 1984, and interim 1985 1/

Item	1982	1983	1984	Interim period ended June 30--	
				1984	1985
Net sales------1,000 dollars--	54,603	46,495	52,183	***	***
Cost of goods sold 1,000 dollars--	40,218	37,390	43,138	***	***
Gross income----------do----	14,385	9,105	9,045	***	***
General, selling, and administrative expenses 1,000 dollars--	8,945	7,851	8,685	***	***
Operating income 1,000 dollars--	5,440	1,254	360	***	***
Other income or (expense), net 2/-------1,000 dollars--	***	***	***	***	***
Net income or (loss) before income taxes 1,000 dollars--	***	***	***	***	***
Depreciation and amortization 1,000 dollars--	***	***	***	***	***
Cash flow----------do----	6,740	2,895	2,051	1,347	1,831
Ratio to net sales of--					
Gross income------percent--	26.4	19.6	17.3	***	***
Operating income-----do----	10.0	2.7	0.7	***	***
Net income or (loss) before income taxes-----percent--	***	***	***	***	***
Cost of goods sold----do----	73.6	80.4	82.7	***	***
General, selling, and administrative expenses percent--	16.4	16.9	16.6	***	***
Number of firms reporting--					
Operating losses----------	1	1	1	0	0
Net losses before taxes-----	1	2	1	1	0

1/ Data include * * *.
2/ Data are for 1 firm.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

net sales during interim 1985, compared with * * * percent during the corresponding period of 1984. General, selling, and administrative expenses remained rather stable during 1982-84. Such expenses, however, rose to * * * percent of net sales during interim 1985, compared with * * * percent of net sales during the corresponding period of 1984.

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* * *.--This firm, a producer of both malleable and nonmalleable cast-iron pipe fittings, was unable to furnish separate income-and-loss data concerning both its malleable and nonmalleable cast-iron pipe fittings operations. However, income-and-loss data relative to this firm's total establishment operations are shown in table 13 for 1982-84 and the two 6-month interim periods ended June 30, 1985. Net sales of malleable cast-iron pipe fittings * * *. Net sales of nonmalleable cast-iron pipe fittings * * * from * * * percent of total establishment net sales in 1982 to * * * percent in 1984 and to * * * percent during the 1985 interim period. Overall establishment operating income * * * from * * * percent of net sales in 1982 to * * * percent in 1983. In 1984 * * *. Operating income was equal to * * * percent of net sales during the 6-month period ending June 30, 1985, compared with * * * percent of net sales during the corresponding period of 1984.

Investment in productive facilities.-- U.S. producers' investment in productive facilities employed in the production of malleable cast-iron pipe fittings, valued at cost, rose from $69.7 million as of the end of 1982 to $79.9 million as of June 30, 1985 (table 14). 1/ The book value of such assets was $40.7 million as of June 30, 1985. Their investment in productive facilities employed in the production of nonmalleable cast-iron pipe fittings, valued at cost, rose from $73.1 million as of the end of 1982 to $86.0 million as of June 30, 1985, and the book value of such assets was $37.9 million as of June 30, 1985. 2/

Capital expenditures.-- U.S. producers made capital expenditures of $5.4 million in 1982 for facilities used in the production of malleable cast-iron pipe fittings; capital expenditures in 1983 totaled $5.8 million, those in 1984 were $6.6 million, and those during January-June 1985 totaled * * *, compared with * * * during the corresponding period of 1984. 3/ Capital expenditures for facilities used in the production of nonmalleable cast-iron pipe fittings totaled $3.4 million in 1982, $5.8 million in 1983, $5.0 million in 1984, and * * * during January-June 1985, compared with * * * during the corresponding period of 1984. 4/

Capital and investment.--U.S. producers were asked to describe any actual or potential negative effects of imports of certain cast-iron pipe fittings from Brazil, Korea, and Taiwan on their firms' growth, investment, and ability to raise capital. Below are excerpts from their replies:

* * * * * * *

Table 13.--Income-and-loss experience of * * * on the overall operations of its establishment within which malleable and nonmalleable cast-iron pipe fittings are produced, 1982-84, interim 1984, and interim 1985

* * * * * * *

1/ Three firms reporting.
2/ Ibid.
3/ Ibid.
4/ Ibid.

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Table 14.--Investment in productive facilities and capital expenditures related to cast-iron pipe fittings, 1982-84, January-June 1984, and January-June 1985 1/

(In thousands of dollars)

Item	1982	1983	1984	January-June 1984	January-June 1985
Investment in productive facilities:					
All products::					
Original cost	229,255	248,045	249,750	255,130	264,547
Book value	121,078	125,773	122,905	126,146	122,013
Malleable cast-iron pipe fittings:					
Original cost	69,748	77,510	77,711	74,799	79,853
Book value	32,423	35,289	33,152	35,984	40,712
Nonmalleable cast-iron pipe fittings:					
Original cost	73,139	79,475	83,414	82,802	86,043
Book Value	38,472	39,709	38,778	40,382	37,870
Capital expenditures:					
All products:					
Land	87	42	-	***	-
Buildings	1,357	1,195	778	***	509
Machinery and equipment	12,973	18,291	13,886	***	4,854
Total	14,417	19,528	14,664	***	5,363
Malleable cast-iron pipe fittings:					
Land	-	1	-	***	-
Buildings	589	476	430	***	142
Machinery and equipment	4,855	5,328	6,165	***	***
Total	5,444	5,805	6,595	***	***
Nonmalleable cast-iron pipe fittings:					
Land	-	-	-	***	-
Buildings	213	252	279	***	***
Machinery and equipment	3,194	5,518	4,713	***	834
Total	3,407	5,771	4,992	***	***

1/ Data concerning all products are for 5 firms in 1982-84. Data for malleable cast-iron pipe fittings and nonmalleable cast-iron pipe fittings are for 3 firms in 1982-84. In addition, data for * * * are included in January-June 1984 and January June 1985 for all products and for nonmallcable fittings. Data concerning investment in productive facilities are on an accounting-year basis and data concerning capital expenditures are on a calendar-year basis.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

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The Question of the Threat of Material Injury

In its examination of the question of threat of material injury to an industry in the United States, the Commission may take into consideration such factors as the rate of increase of the alleged less-than-fair-value imports, the rate of increase of U.S. market penetration by such imports, the quantities of such imports held in inventory in the United States, and the capacity of producers in Brazil, Korea, and Taiwan to generate exports (including the availability of export markets other than the United States).

Trends in imports and U.S. market penetration are discussed in the section of this report that addresses the causal relationship between imports and the alleged injury. Information regarding the capacity of the foreign producers to generate exports is discussed in the section of this report that covers the foreign industries. The following discussion addresses inventories in the United States of imported cast-iron pipe fittings from Brazil, Korea, and Taiwan.

Brazil

Both TUPY American Foundry Corp., the sole importer of cast-iron pipe fittings from Brazil, and Kuhns, Inc., an unrelated distributor that purchases virtually all of the cast-iron pipe fittings imported by TUPY American Foundry Corp., hold inventories of imports from Brazil. These inventories are shown in table 15. TUPY American's * * * during January-June 1984 and January-June 1985, when inventory levels declined from the former period to the latter. Kuhns' inventories * * * and were relatively steady between 1983 and 1984.

Table 15.--Certain cast-iron pipe fittings: Inventories of imports from Brazil held in the United States, by firms and by types, 1982-84, January-June 1984, and January-June 1985

* * * * * * *

Korea

Inventories in the United States of imports of malleable cast-iron pipe fittings from Korea increased from 1982 to 1984, both in nominal terms and as a share of total imports of such fittings from Korea. Inventories as a share of imports in January-June 1985 were at approximately the same level as in January-June 1984. Data on such inventories, derived from responses to Commission questionnaires, 1/ are presented in the following tabulation:

* * * * * *

1/ No questionnaire responses were received from importers of nonmalleable cast-iron pipe fittings (imports of nonmalleable fittings from Korea are not subject to investigation).

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Taiwan

Inventories of imports of cast-iron pipe fittings from Taiwan held by U.S. importers declined as a share of total imports of such fittings from Taiwan during 1982-84 and also during January-June 1985 compared with such inventories in the corresponding period of 1984. This trend held true for malleable fittings and also for nonmalleable fittings from 1983 onward, as the following tabulation of data from Commission questionnaires shows:

Item	1982	1983	1984	January-June	
				1984	1985
Inventories of imports from Taiwan:					
Malleable--short tons	847	710	767	582	476
Nonmalleable--do	***	***	***	***	***
Total--do	***	***	***	***	***
Ratio of inventories of imports from Taiwan to total imports from Taiwan:					
Malleable--percent	21.5	17.0	16.0	27.6	16.0
Nonmalleable--do	***	***	***	***	***
Average--do	***	***	***	***	***

Consideration of the Causal Relationship Between the Alleged Less-Than-Fair-Value Imports and the Alleged Injury

U.S. imports

U.S. imports of cast-iron pipe fittings covered by these investigations are presented in table 16. Data on imports of malleable cast-iron fittings are presented in table 17, and data on nonmalleable fittings are in table 18. These data, compiled from official statistics, include certain items which do not meet the definition of the articles covered by these investigations. Thus, official statistics describing imports from India, 1/ Korea, and

1/ Approximately 84.5 percent of imports of malleable cast-iron pipe fittings from India as described by official statistics are not products covered by these investigations. Approximately 74.2 percent of such imports of nonmalleable fittings are not products covered by these investigations. Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-26.

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Table 16.--Certain cast-iron pipe fittings: U.S. imports for consumption, 1/ by sources, 1982-84, January-June 1984, and January-June 1985

Source	1982	1983	19[illegible]	January-June	
				1984	1985
	Quantity (short tons)				
Brazil	263	1,750	2,609	1,663	195
Korea	2,817	3,719	6,676	2,961	4,295
Taiwan	4,772	4,701	6,018	2,759	4,378
Japan	8,371	8,915	11,039	5,808	3,461
India	3,235	4,888	7,231	3,160	2,657
Canada	1,510	962	1,367	1,110	401
All other	4,291	2,034	3,995	1,728	2,644
Total	25,259	26,969	38,935	19,189	18,031
	Value (1,000 dollars)				
Brazil	363	1,542	2,389	1,414	298
Korea	2,952	3,818	6,652	2,803	4,068
Taiwan	5,989	6,094	7,233	3,270	5,229
Japan	11,046	11,271	15,118	7,450	4,671
India	1,680	2,217	3,405	1,488	1,266
Canada	2,167	1,432	1,717	1,297	487
All other	4,898	2,589	4,975	2,672	2,814
Total	29,095	28,963	41,489	20,394	18,833
	Unit value (per pound)				
Brazil	$0.69	$0.44	$0.46	$0.43	$0.76
Korea	.52	.51	.50	.47	.47
Taiwan	.63	.65	.60	.59	.60
Japan	.66	.63	.68	.64	.67
India	.26	.23	.24	.24	.24
Canada	.72	.74	.63	.58	.61
All other	.57	.64	.62	.77	.53
Average	.58	.54	.53	.53	.52
	Percent of total quantity				
Brazil	1.0	6.5	6.7	8.7	1.1
Korea	11.2	13.8	17.1	15.4	23.8
Taiwan	18.9	17.4	15.5	14.4	24.3
Japan	33.1	33.1	28.4	30.3	19.2
India	12.8	18.1	18.6	16.5	14.7
Canada	6.0	3.6	3.5	5.8	2.2
All other	17.0	7.5	10.3	9.0	14.7
Total	100.0	100.0	100.0	100.0	100.0

1/ Data for India, Korea, and Taiwan include certain products not covered by these investigations.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note.--Because of rounding, figures may not add to the totals shown.

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Taiwan 1/ presented in this section overstate actual imports of cast-iron pipe fittings. In the sections of this report discussing apparent U.S. consumption and market share, official import statistics are adjusted to exclude any known unrelated products.

The leading source of imports of cast-iron pipe fittings to the United States in 1984 was Japan, with 28 percent of the quantity of all such imports, followed by India at 19 percent, Korea at 17 percent, Taiwan at 16 percent, and Brazil at 7 percent. In January-June 1985, Taiwan was the leading source of imports, with 24 percent of the quantity of all imports. Korean imports took second place, at just under 24 percent, followed by Japan at 19 percent, and India at 15 percent. Brazil fell to eighth place as a source of imports in January-June 1985 with only 1 percent.

Imports of malleable cast-iron pipe fittings were also dominated by Japan. In 1984, Japan provided 42 percent of the quantity of U.S. imports of such fittings, followed by Taiwan at 19 percent, Korea at 14 percent, India at 9 percent, and Brazil at 6 percent (table 17). In January-June 1985, Japan continued to be the leading supplier nation, with 29 percent of the quantity of U.S. imports, followed by Korea at 25 percent, Taiwan at just under the Korean level, Thailand at 12 percent, India at 5 percent, and Brazil at 1 percent.

The quantity of imports of malleable fittings from Brazil grew markedly from 1982 to 1984, increasing by over 500 percent over the period. From January-June 1984 to January-June 1985, however, malleable imports from Brazil dropped by 77 percent. The quantity of imports of malleable fittings from Korea declined by 21 percent, from 1,946 tons in 1982 to 1,532 tons in 1983, and then increased by 144 percent, to 3,734 tons, in 1984. Imports from Korea also increased between January-June 1984 and the corresponding period of 1985 by 66 percent. Imports of malleable fittings from Taiwan, like those from Brazil, increased each year during 1982-84, from 3,961 tons in 1982 to 4,883 tons in 1984, or by 23 percent. Such imports continued to increase, growing by 38 percent from 2,165 tons in January-June 1984 to 2,997 tons in January-June 1985.

Imports of nonmalleable cast-iron pipe fittings were dominated by India and Korea through the end of 1984 and by India and Taiwan in January-June

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1/ Responses to Commission questionnaires indicated that certain imports from Korea and Taiwan classified in official statistics as imports of cast-iron pipe fittings were not products covered by these investigations These imports included valve fittings, couplings, and, from Taiwan, grooved cast-iron pipe fittings. Such unrelated products accounted for an average of 1 percent of official statistics on malleable and nonmalleable fittings from Taiwan, and an average of 3 percent of official statistics on nonmalleable fittings from Korea. Questionnaire responses were received from a small number of the importers of Korean and Taiwanese products, therefore the number of unrelated products included in official import statistics is probably higher than available figures indicate.

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Table 17.--Certain malleable cast-iron pipe fittings: U.S. imports for consumption, 1/ by sources, 1982-84, January-June 1984, and January-June 1985

Source	1982	1983	1984	January-June-	
				1984	1985
	Quantity (short tons)				
Brazil	263	698	1,637	691	161
Korea	1,946	1,532	3,734	1,811	3,010
Taiwan	3,961	4,249	4,883	2,165	2,997
Japan	8,357	8,851	10,963	5,781	3,445
India	1,970	2,126	2,447	1,249	596
Thailand	451	687	1,340	540	1,436
All other	1,708	932	1,253	486	436
Total	18,656	19,075	26,257	12,723	12,081
	Value (1,000 dollars)				
Brazil	363	794	1,738	763	150
Korea	1,925	1,565	3,465	1,692	2,916
Taiwan	5,209	5,711	6,336	2,776	4,114
Japan	11,013	11,201	14,967	7,404	4,637
India	1,000	985	1,198	613	272
Thailand	446	778	1,512	583	1,621
All other	2,814	1,475	2,436	1,592	670
Total	22,770	22,509	31,652	15,423	14,380
	Unit value (per pound)				
Brazil	$0.69	$0.57	$0.53	$0.55	$0.47
Korea	.49	.51	.46	.47	.48
Taiwan	.66	.66	.64	.65	.68
Japan	.66	.63	.68	.64	.67
India	.25	.23	.24	.25	.23
Thailand	.49	.57	.56	.54	.56
All other	.82	.79	.97	1.64	.77
Average	.64	.62	.63	.64	.61
	Percent of total quantity				
Brazil	1.4	3.7	6.2	5.4	1.3
Korea	10.4	8.0	14.2	14.2	24.9
Taiwan	21.2	22.3	18.6	17.0	24.8
Japan	44.8	46.4	41.8	45.4	28.5
India	10.6	11.1	9.3	9.8	4.9
Thailand	2.4	3.6	5.1	4.2	11.9
All other	9.2	4.9	4.8	3.8	3.6
Total	100.0	100.0	100.0	100.0	100.0

1/ Includes imports entered under TSUS items 610.70 and 610.74. Data for India, Korea, and Taiwan include certain products not covered by these investigations.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Note.--Because of rounding, figures may not add to the totals shown.

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1985. In 1984, India provided 38 percent of the quantity of U.S. imports of such fittings, followed by Korea at 23 percent, Canada at 10 percent, Taiwan at 9 percent, and Brazil at 8 percent (table 18). In January-June 1985, India was still the leading supplier nation, with 35 percent of the quantity of U.S. imports, followed by Taiwan at 23 percent, Korea at 22 percent, China at 8 percent, and Canada at 6 percent. During this period, Brazil dropped to the seventh largest supplier, with 1 percent of total imports.

The quantity of imports of nonmalleable fittings from Brazil fluctuated widely, going from zero in 1982 to 1,052 tons in 1983 and 972 tons in 1984. Imports then fell off sharply to 34 tons in January-June 1985 from 972 tons in the corresponding period of 1984. The quantity of imports of nonmalleable fittings from Korea increased steadily over the period of investigation, by a total of 238 percent, from 871 tons in 1982 to 2,942 tons in 1984. Imports from Korea also increased between January-June 1984 and the corresponding period of 1985, by 12 percent. Imports of nonmalleable fittings from Taiwan increased irregularly by 40 percent over the period of investigation, from 810 tons in 1982 to 1,135 tons in 1984. Such imports continued to increase, growing by 133 percent from 593 tons in January-June 1984 to 1,381 tons in January-June 1985.

Most of the imports of malleable fittings from Brazil and Korea and nonmalleable fittings from Taiwan entered the United States through a small number of customs districts. Imports of malleable fittings from Taiwan came through various districts. The Brazilian malleable fittings entered almost entirely through eastern ports, whereas entries of the Korean and Taiwanese malleable fittings were more widely dispersed. The Taiwanese nonmalleable fittings entered primarily through western ports. The following tabulation presents data on the principal districts through which such imports entered in 1984, by sources:

	Percentage distribution
Malleable:	
Brazil:	
Baltimore	72
Philadelphia	24
4 other districts	4
Total	100
Korea:	
Los Angeles	42
Baltimore	36
11 other districts	22
Total	100
Taiwan:	
Los Angeles	19
Tampa	13
New York	10
Chicago	9
15 other districts	49
Total	100
Nonmalleable:	
Taiwan:	
Los Angeles	81
New York	6
8 other districts	13
Total	100

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Table 18.--Certain nonmalleable cast-iron pipe fittings: U.S. imports for consumption, 1/ by sources, 1982-84, January-June 1984, and January-June 1985

Product	1982	1983	1984	January-June 1984	January-June 1985
	Quantity (short tons)				
Brazil	0	1,052	972	972	34
Korea	871	2,187	2,942	1,149	1,285
Taiwan	810	452	1,135	593	1,381
India	1,266	2,763	4,783	1,912	2,061
Canada	1,228	875	1,289	1,078	368
China	30	142	496	240	501
All other	2,398	423	1,061	523	320
Total	6,603	7,894	12,678	6,467	5,950
	Value (1,000 dollars)				
Brazil	-	748	651	651	148
Korea	1,027	2,252	3,188	1,111	1,152
Taiwan	780	383	897	494	1,115
India	680	1,232	2,207	875	994
Canada	1,866	1,273	1,586	1,239	435
China	8	57	196	86	211
All other	1,964	509	1,113	515	398
Total	6,325	6,454	9,836	4,971	4,453
	Unit value (per pound)				
Brazil	-	$0.36	$0.33	$0.33	$2.18
Korea	$0.59	.52	.55	.49	.45
Taiwan	.48	.42	.40	.42	.41
India	.27	.22	.23	.23	.24
Canada	.76	.73	.62	.57	.59
China	.13	.20	.20	.18	.21
All other	.41	.60	.52	.49	.62
Average	.48	.41	.39	.38	.37
	Percent of total quantity				
Brazil	-	13.3	7.7	15.0	0.6
Korea	13.2	27.7	23.2	17.8	21.6
Taiwan	12.3	5.7	9.0	9.2	23.2
India	19.2	35.0	37.7	29.6	34.6
Canada	18.6	11.1	10.2	16.7	6.2
China	.4	1.8	3.9	3.7	8.4
All other	36.3	5.4	8.4	8.1	5.4
Total	100.0	100.0	100.0	100.0	100.0

1/ Includes imports entered under TSUSA item 610.6240 and TSUS item 610.65. Data for India, Korea, and Taiwan include certain products not covered by these investigations.

Source: Compiled from official statistics of the U.S. Department of Commerce.

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Pursuant to section 304(a)(3)(J) of the Tariff Act of 1930 and Treasury Decision 71-89, imported cast-iron pipe fittings covered by the investigations were, until recently, excepted from country-of-origin marking requirements. This exception was revoked under section 207 of the Trade and Tariff Act of 1984, which requires that imports of these articles entering on or after November 14, 1984, have country-of-origin markings by means of die stamping, cast-in-mold lettering, etching, or engraving.

Market penetration of imports 1/

In general, domestic shipments of U.S.-produced cast-iron pipe fittings captured a declining share of the U.S. market from 1982 to 1984, but imports took an increasing share (table 19). The share of the market held by imports from Korea and Taiwan followed the trend for all imports, but the share held by imports from Brazil did not. Brazilian imports' share increased from almost zero in 1982 to 1.8 percent in 1983 and then declined slightly to 1.7 percent in 1984.

Compared with that in the corresponding period of 1984, the position of the domestic industry in January-June 1985, remained steady, at 71.6 percent. Imports' market share thus was unchanged in the aggregate, but the share held by imports from Korea and Taiwan continued to increase, climbing by about 3 percentage points for each country. Brazilian imports' market share, however, continued to decline in January-June 1985, falling by 2 percentage points from that in the corresponding period of 1984.

The U.S. market for malleable cast-iron pipe fittings was where U.S. production lost most of its market share. In 1982, U.S.-produced malleable fittings accounted for 73.6 percent of apparent U.S. consumption, but that share declined to 71.4 percent in 1983 and to 66.8 percent in 1984. In January-June 1985, the market share of domestic production was 65.1 percent compared with 67.4 percent during the corresponding period of 1984.

From 1982 to 1983, 90 percent of the decline in shipments of U.S.-produced malleable fittings was accounted for by a decline in apparent U.S. consumption, and 10 percent of the decline was accounted for by an increase in imports. From 1983 to 1984, 100 percent of the increase in shipments of U.S. production was caused by an increase in apparent consumption, since imports also increased over the period. From January-June 1984 to January-June 1985, 67 percent of the decline in shipments of U.S. production was accounted for by a decline in apparent consumption, and 33 percent was accounted for by an increase in imports.

In the U.S. market for nonmalleable cast-iron pipe fittings, U.S.-produced fittings accounted for a declining share of apparent U.S.

1/ Data on market penetration as presented in this section are calculated by adjusting official import statistics to (1) delete any items that are not covered by these investigations and (2) to account for inventories of imports reported to the Commission via importers' questionnaires. See the discussion of this calculation in the section entitled "Apparent U.S. consumption." Market penetration information calculated without adjusting for inventories of imports is presented in app. C.

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Table 19.--Certain cast-iron pipe fittings: Ratios of the quantity of imports 1/ and of domestic shipments of U.S. production to apparent U.S. consumption, by types and selected sources, 1982-84, January-June 1984, and January-June 1985

(In percent)

Item	1982	1983	1984	January-June	
				1984	1985
Malleable imports:					
Brazil	0.4	1.1	1.8	2.1	1.2
Korea	3.0	2.6	4.3	3.6	7.6
Taiwan	6.1	7.1	6.9	6.5	9.8
Brazil and Korea	3.4	3.7	6.1	5.7	8.7
Brazil and Taiwan	6.6	8.2	8.7	8.7	11.0
Korea and Taiwan	9.2	9.7	11.2	10.1	17.4
Brazil, Korea, and Taiwan	9.6	10.8	13.0	12.3	18.5
Total	26.4	28.6	33.2	32.7	34.9
Domestic shipments of U.S. production	73.6	71.4	66.8	67.4	65.1
Total	100.0	100.0	100.0	100.0	100.0
Nonmalleable imports:					
Taiwan	2.0	1.4	2.5	2.5	5.8
Total	13.6	15.3	19.4	22.1	19.3
Domestic shipments of U.S. production	86.4	84.7	80.6	77.9	80.7
Total	100.0	100.0	100.0	100.0	100.0

1/ Official import statistics are adjusted to eliminate known misclassifications and to account for known inventories of imports. Statistics on U.S. production include only domestic shipments of such products.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from official statistics of the U.S. Department of Commerce.

consumption from 1982-84, but held an increasing share in January-June 1985 compared with that in the corresponding period of 1984. In 1982, U.S.-produced nonmalleable fittings accounted for 86.4 percent of apparent U.S. consumption, but that share declined to 84.7 percent in 1983 and to 80.6 percent in 1984. In January-June 1985, however, the market share of domestic production was 80.7 percent compared with 77.9 percent during January-June 1984.

From 1982 to 1983, 94 percent of the decline in shipments of U.S.-produced nonmalleable fittings was accounted for by a decline in apparent U.S. consumption, and 6 percent of the decline was accounted for by an increase in imports. From 1983 to 1984, 100 percent of the increase in shipments of U.S. production was caused by an increase in apparent consumption, since imports also increased over the period. From January-June 1984 to January-June 1985, 64 percent of the increase in shipments of U.S.

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production was accounted for by an increase in apparent consumption, while 36 percent was accounted for by a decline in imports.

Prices

U.S. producers and importers maintain price lists covering each type of pipe fitting sold. The suggested list price for domestically produced pipe fittings is generally determined on a semiannual basis through an analysis of manufacturing costs and other overhead costs. 1/ The list price then becomes the basis against which discounts are made.

A complex discounting system is commonly used in the pipe fitting market. It generally begins with an initial 55-percent deduction from the list price with additional deductions made in increments of 5 or 10 percent of the remaining price. 2/ For example, a discount of 55 + 10 + 10 + 10 + 10 (described as "55 and four 10's") is equal to deductions from the list price of 55 percent plus 4.5 percent plus 4.1 percent plus 3.7 percent plus 3.3 percent for a total discount from the list price of 70.6 percent. Discounts generally grow larger as the quantity purchased (in pounds) increases. 3/

The Commission requested price data for four representative specifications of malleable and nonmalleable pipe fittings sold to distributors. Delivered and f.o.b. prices 4/ were requested for each firm's largest sales to unrelated distributors in each quarter of 1983-84, and January June 1985 for the following specifications of pipe fittings:

PRODUCT 1: 1-inch cast-iron (not malleable), black, threaded, standard pressure (125 p.s.i.) 90-degree elbows ("ell's").

PRODUCT 2: 1-inch x 1/2-inch cast-iron (not malleable), black, standard pressure (125 p.s.i.) concentric reducers.

PRODUCT 3: 1/2-inch malleable, black, threaded, standard pressure (150 p.s.i.) 90-degree elbows ("ell's").

PRODUCT 4: 1/2-inch malleable, galvanized, threaded, standard pressure (150 p.s.i.) 90-degree elbows ("ell's").

Prices were requested for products 1 and 2 only with respect to imports from Taiwan; prices were requested for products 3 and 4 with respect to imports from Brazil, Korea, and Taiwan. Questionnaires containing price data were received from 6 U.S. producers and 18 importers. One importer's questionnaire, submitted by * * *, was not included in the price calculations,

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1/ Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-37.

2/ Conversation with Mr. John McGarrah, President, Stanley G. Flagg & Co., Inc., Aug. 14, 1985.

3/ Ibid.

4/ U.S. producers provided usable delivered price data but generally could not provide comparable f.o.b. price information; accordingly, f.o.b. data are not discussed in this section.

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because the firm was unable to provide separate data for Korea and Taiwan. The number of importers' responses used in the weighted- average price and margin calculations, by products and countries, were as follows:

Product No.	Country	Number of importers providing price data
1	Taiwan	3
2	Taiwan	2
3	Brazil	1
3	Korea	3
3	Taiwan	10
4	Brazil	1
4	Korea	4
4	Taiwan	12

Price trends and price comparisons.--For 1-inch, nonmalleable, black, threaded elbows (product 1), the U.S. producers' weighted-average delivered price increased from 49 cents per unit in January-March 1983 to 50 cents per unit in April-June 1985, or by 2.0 percent (table 20). The delivered price of

Table 20.--Weighted-average delivered prices reported by U.S. producers and the sellers of the Taiwan product for sales to distributors of 1-inch nonmalleable, black, threaded, standard pressure (125 psi), 90-degree elbows (product 1), by quarters, January 1983-June 1985

Period	U.S. product	Taiwan product	Imports' margins of underselling or (overselling)	
			Amount	Percent
	Per unit			
1983:				
Jan.-Mar.	$0.49	$***	$***	***
Apr.-June	.46	***	***	***
Jul.-Sep.	.50	***	***	***
Oct.-Dec.	.47	***	1/	***
1984:				
Jan.-Mar.	.48	***	***	***
Apr.-June	.49	***	***	***
Jul.-Sep.	.55	***	***	***
Oct.-Dec.	.48	***	***	***
1985:				
Jan.-Mar.	.49	***	***	***
Apr.-June	.50	***	***	***

1/ ***.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Note.--Weighted-average prices and margins are calculated from unrounded figures.

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imports from Taiwan in this category decreased from * * * per unit in January-March 1983 to * * * per unit in April-June 1985, or by * * * percent. Margins of overselling existed for product 1 in January-June 1983, increasing from * * * percent in January-March to * * * percent in April-June. In July-September 1983, imports began underselling the domestic product with margins of underselling peaking at * * * percent in July-September 1984. Underselling margins declined in October-December 1984 to * * * percent, but increased again to * * * percent in April-June 1985.

For 1-inch by 1/2-inch nonmalleable, black concentric reducers (product 2), the U.S. producers' weighted-average delivered price decreased unevenly from 57 cents per unit in January-March 1983 to 40 cents per unit in April-June 1985, or by 29.8 percent (table 21). During this period, the domestic delivered price decreased to 42 cents per unit in October-December 1983, rose to 51 cents in October-December 1984, and then subsequently dropped to 40 cents per unit in April-June 1985. The delivered price of the Taiwan product decreased from * * * to * * * per unit in 1983 and continued to drop to * * * per unit in April-June 1985, or by * * * percent over the period. The margins of underselling declined unevenly from * * * percent in January-March 1983 to * * * percent in July-September 1984, increased to * * * percent in October-December 1984, and finally declined to * * * percent in April-June 1985.

Table 21.--Weighted-average delivered prices reported by U.S. producers and the sellers of the Taiwan product for sales to distributors of 1-inch by 1/2-inch nonmalleable, black, standard pressure (125 psi), concentric reducers (product 2), by quarters, January 1983-June 1985

Period	U.S. product	Taiwan product	Imports' margins of underselling	
			Amount	Percent
	Per unit			
1983:				
Jan.-Mar.	$0.57	$***	$***	***
Apr.-June	.55	***	***	***
Jul.-Sep.	.49	***	***	***
Oct.-Dec.	.42	***	***	***
1984:				
Jan.-Mar.	.43	***	***	***
Apr.-June	.44	***	***	***
Jul.-Sep.	.41	***	***	***
Oct.-Dec.	.51	***	***	***
1985:				
Jan.-Mar.	.45	***	***	***
Apr.-June	.40	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission

Note.--Weighted-average prices and margins are calculated from unrounded figures.

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For 1/2-inch malleable, black, threaded elbows (product 3), the U.S. producers' weighted-average delivered price increased from 19 cents per unit in January-March 1983 to 20 cents per unit through October-December 1983. This pattern was repeated in 1984, when the weighted-average price increased from 19 cents per unit in January-March 1984 to 20 cents per unit through October-December 1984. In January-March 1985, the price was 21 cents per unit, but that level fell in April-June 1985 to 20 cents per unit (table 22).

Brazil.--As in the previous investigation of certain cast-iron pipe fittings, investigation No. 701-TA-221, data submitted by Kuhns, Inc., on prices of its imported fittings were used in the price calculations rather than the data submitted by TUPY American Foundry Corp. 1/ TUPY American Foundry Corp. imports the Brazilian pipe fittings into Baltimore, and, to a lesser extent, into Philadelphia. TUPY American then sells this product to Kuhns at an f.o.b., ex-dock, duty-free price. Kuhns takes delivery of the Brazilian fittings at Baltimore (or Philadelphia) and then sells the Brazilian pipe fittings as part of its brand-name line of pipe fittings to unrelated distributors or end users. TUPY American sells the imported Brazilian fittings almost exclusively to Kuhns. Thus, Kuhns' prices, rather than TUPY's prices, are at a level of the distribution chain comparable with U.S. producers' prices.

Prices for the Brazilian product * * * per unit throughout the period under investigation. Margins of underselling for the Brazilian product varied from * * * percent to * * * percent.

Korea.--Prices for the Korean product decreased from * * * per unit in January-March 1983 to * * * per unit in April-June 1985, or by * * * percent. The Korean product oversold the domestic product from January-March 1983 through January-March 1984. The margins of overselling ranged from * * * percent to * * * percent. Underselling by the Korean product began in April-June 1984 with a margin of * * * percent, peaked at * * * percent in July-September 1984, dropped to * * * percent in October-December 1984, and then rose to * * * percent in April-June 1985.

Taiwan.--Prices for Taiwan imports of product 3 fluctuated between 14 and 17 cents per unit between January-March 1983 and October-December 1984. From October-December 1984 through April-June 1985, the price of the Taiwan product remained constant at 15 cents per unit. The Taiwan product undersold the domestic product in each quarter. The margins of underselling declined unevenly from 26.8 percent in January-March 1983 to 12.9 percent in April-June 1984. Such margins increased to 27.8 percent in January-March 1985, and then declined to 26.3 percent in April-June 1985.

1/ The price Kuhns pays for Brazilian pipe fittings is determined * * *. Competition with U.S.-produced pipe fittings does not effectively exist for sales by TUPY American Foundry Corp. to Kuhns, Inc. of the Brazilian-produced pipe fittings. Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-37.

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Table 22.--Weighted-average delivered prices reported by U.S. producers and sellers of the foreign-made product for sales to distributors of 1/2-inch malleable, black, threaded, standard pressure (150 psi), 90-degree elbows (product 3), by quarters, January 1983-June 1985

Period	U.S. product	Brazilian product	Imports' margins of underselling		Korean product	Imports' margins of underselling/(overselling)		Taiwan product	Imports' margins of underselling	
			Amount	Percent		Amount	Percent		Amount	Percent
	Per unit				Per unit			Per unit		
1983:										
Jan.-Mar--	$0.19	-	-	-	$***	$***	***	$0.14	$0.05	26.8
Apr.-Jun--	.20	-	-	-	***	***	***	.15	.05	24.7
Jul.-Sep--	.20	$***	$***	***	***	***	***	.17	.03	13.6
Oct.-Dec--	.20	***	***	***	***	***	***	.17	.03	13.4
1984:										
Jan.-Mar--	.19	***	***	***	***	***	***	.15	.04	21.8
Apr.-Jun--	.20	***	***	***	***	***	***	.17	.03	12.9
Jul.-Sep--	.20	***	***	***	***	***	***	.16	.04	18.3
Oct.-Dec--	.20	***	***	***	***	1/	***	.15	.05	25.1
1985:										
Jan.-Mar--	.21	***	***	***	***	***	***	.15	.06	27.8
Apr.-Jun--	.20	-	-	-	***	***	***	.15	.05	26.3

1/ ***.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Note.--Weighted-average prices and margins are calculated from unrounded figures.

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For 1/2-inch malleable, galvanized, threaded 90-degree elbows (product 4), the U.S. producers' weighted-average delivered price increased from 22 to 23 cents per unit in 1983, declined to 21 cents in October-December 1984, and then further declined to 20 cents in April-June 1985 (table 23).

Brazil.--Reported prices for the Brazilian product * * * per unit from July-September 1983 through April-June 1985. The margins of underselling for the Brazilian product peaked at * * * percent in October-December 1983, and then declined unevenly to * * * percent in October-December 1984. The margins of underselling increased to * * * percent in January-March 1985 before declining to * * * percent in April-June 1985.

Korea.--Prices for the Korean product * * * per unit through 1983, * * * to 17 cents per unit in 1984, and then declined to 15 cents per unit for both quarters of 1985. The margins of underselling for the Korean product * * * from * * * percent in April-June 1983 to 20.7 percent in April-June 1985.

Taiwan.--The weighted-average delivered price of the Taiwan product declined from 17 cents per unit in January-March 1983 to 14 cents in April-June 1985, or by 17.6 percent. The Taiwan product undersold the domestic product during each quarter under investigation. The margins of underselling increased from 20.5 to 33.0 percent in 1983, declined to 21.0 percent in July-September 1984, and then increased unevenly to 28.9 percent in April-June 1985.

Transportation costs.--Pipe fittings sold by U.S. producers and importers are transported to distributors by truck. Transportation costs average about 4 to 5 percent of the delivered price across the spectrum of all pipe fittings sold. According to Mr. John McGarrah, president, Stanley G. Flagg & Co., Inc., suppliers pay transportation costs on about 90 percent of all pipe fittings sold. Mr. McGarrah further stated that free freight is a significant sales tool and is often provided for large orders, usually 2,000 pounds or more, or for frequent customers. 1/ For small orders, freight is charged as an added-on cost. 2/

Data obtained in the prior investigation of cast-iron pipe fittings 3/ provide information on freight charges for pipe fittings shipped to particular regions of the country. Freight charges varied by companies and by points of origin. For example, freight charges (per 100 pounds) to the Philadelphia/New York market area totaled * * * per 100 pounds for ITT-Pennsylvania, * * * for Ward-Pennsylvania, * * * for ITT-Georgia, and * * * for Stockham-Alabama. Freight charges to the Atlanta market area were * * * for ITT-Pennsylvania, * * * for ITT-Georgia, * * * for Stockham-Alabama, and * * * for Ward-Pennsylvania.

1/ Sprink, Inc., an importer of nonmalleable fittings from Taiwan, claims that domestic producers usually pay for freight on shipments of 2,000 pounds or more, whereas Sprink covers transportation costs only on shipments of 10,000 pounds or more. Postconference brief of Sprink, Inc., p. 16.

2/ Ibid.

3/ Certain Cast-Iron Pipe Fittings from Brazil: Determinations of the Commission in Investigation No. 701-TA-221, USITC Publication 1681, April 1985, p. A-44.

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Table 23.--Weighted-average delivered prices reported by U.S. producers and sellers of the foreign-made product for sales to distributors of 1/2-inch malleable, galvanized, threaded, standard pressure (150 psi), 90 degree elbows (product 4), by quarters, January 1983-June 1985

Period	U.S. product	Brazilian product	Imports' margins of underselling		Korean product	Imports' margins of underselling		Taiwan product	Imports' margins of underselling	
			Amount	Percent		Amount	Percent		Amount	Percent
	Per unit				Per unit			Per unit		
1983:										
Jan.-Mar--	$0.22	-	-	-	$***	$***	***	$0.17	$0.04	20.5
Apr.-Jun--	.23	-	-	-	***	***	***	.16	.07	30.5
Jul.-Sep--	.23	$***	$***	***	***	***	***	.15	.07	32.5
Oct.-Dec--	.23	***	***	***	***	***	***	.15	.08	33.0
1984:										
Jan.-Ma		***	***	***	***	***	***	.16	.06	28.1
Apr.-Jun--	.21	***	***	***	***	***	***	.15	.06	28.4
Jul.-Sep--	.20	***	***	***	***	***	***	.16	.04	20.5
Oct.-Dec--	.21	***	***	***	.17	.04	20.1	.16	.04	20.6
1985:										
Jan.-Mar--	.21	***	***	***	.15	.06	26.6	.15	.06	28.8
Apr.-Jun--	.20	***	***	***	.15	.05	20.7	.14	.06	28.9

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Note.--Weighted-average prices and margins are calculated from unrounded figures.

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Exchange rates

Quarterly data reported by the International Monetary Fund show that during January 1982-March 1985, the nominal value of the Brazilian cruzeiro, the Korean won, and the New Taiwan dollar depreciated relative to the U.S. dollar by 96.3, 15.3, and 3.6 percent, respectively (table 24). The levels of inflation in Taiwan were slightly lower than those in the United States over the 13-quarter period ended March 1985, whereas inflation levels in Korea were approximately the same as in the United States. Thus, changes in the real value of the New Taiwan dollar and Korean won compared with the U.S. dollar were not significantly different from changes in the nominal values. However, because of the very high levels of inflation in Brazil, the real value of its currency declined by only 12.5 percent relative to the U.S. dollar--significantly less than the apparent depreciation of 96.3 percent represented by the nominal devaluation.

Lost sales

One U.S. producer provided the Commission with a questionnaire response containing specific information concerning instances in which it allegedly lost sales to low-priced imports of malleable cast-iron pipe fittings from Brazil, Korea, or Taiwan. Information on sales lost by the same producer and by two other producers was included in the petitions. No specific information on lost sales involving nonmalleable pipe fittings was provided, and no specific allegations of price suppression or depression were made.

* * * attached a statement to its questionnaire response asserting that although it could not provide specific instances of lost sales, its lost volume required "lowering prices to meet the market conditions brought about by imports." * * * attached a statement to its questionnaire response asserting that it could not identify specific instances of lost sales because distributors are reluctant to identify a particular source for a lost order.

* * *'s questionnaire submission alleged 12 instances of lost sales involving a total amount of approximately * * *. Three allegations were withdrawn by * * * because in two cases they involved customers to which * * * had not sold pipe fittings since 1981, and in the third case, involved sales lost to Japanese-made products. 1/

* * *.--* * * alleged that * * * rejected its offer to sell * * * short tons of malleable threaded pipe fittings for * * * and instead purchased a Brazilian product for * * *. * * * said that the allegation was not true. According to * * *, he has not purchased any significant quantity of Brazilian fittings for quite some time. * * * added that he is now purchasing more domestic fittings than he has in the past, because domestic fittings are generally of higher quality than imported products. * * * foresees purchasing more imports in the future, however, in order to remain competitive.

* * *.--* * * alleged that in * * * it lost a sale of * * * tons of malleable pipe fittings to * * *, owing to competition from low-priced imports from Taiwan. * * * said that the allegation was not true. According to * * *,

1/ Conversation with * * *, Aug. 23, 1985.

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Table 24.--Nominal and real-exchange rate equivalents 1/ of the Brazilian cruzeiro, the Korean won, and the New Taiwan dollar in U.S. dollars, and Producer Price Indexes in the United States, Brazil, Korea, and Taiwan, by quarters, January 1982-March 1985

(January-March 1982=100)

Period	U.S. Producer Price Index	Brazil			Korea			Taiwan		
		Producer Price Index	Nominal exchange rate	Real exchange rate 2/	Producer Price Index	Nominal exchange rate	Real exchange rate 2/	Producer Price Index	Nominal exchange rate	Real exchange rate 2/
1982:										
Jan.-Mar----	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.-June---	100.1	120.7	86.1	103.8	100.3	97.5	97.7	100.4	97.9	98.2
July-Sep----	100.5	142.8	72.7	103.2	100.7	95.8	96.0	100.1	95.5	95.1
Oct.-Dec----	100.6	165.0	59.9	98.1	101.0	95.4	95.7	99.7	94.4	93.5
1983:										
Jan.-Mar----	100.7	205.9	42.2	86.4	101.4	94.3	94.9	97.9	95.0	92.4
Apr.-June---	101.0	272.2	29.0	78.1	100.6	92.3	92.0	98.6	94.7	92.5
July-Sep----	102.0	390.0	21.6	82.6	100.3	90.4	88.9	98.9	94.5	91.6
Oct.-Dec----	102.5	549.6	15.9	85.2	100.3	89.3	87.4	99.1	94.3	91.1
1984:										
Jan.-Mar----	103.6	724.5	12.1	84.5	100.7	89.2	86.8	99.3	94.4	90.5
Apr.-June---	104.3	962.5	9.1	84.0	101.0	89.0	86.2	99.0	95.4	90.6
July-Sep----	104.1	1284.2	6.9	84.9	101.9	87.6	85.8	99.3	96.7	92.3
Oct.-Dec----	103.8	1794.7	5.0	87.3	102.0	86.7	85.2	98.7	96.4	91.7
1985: (Jan.-Mar.)-------	103.6	2473.4	3.7	87.5	102.0	84.7	83.3	97.8	96.4	91.0

1/ Exchange rates expressed in U.S. dollars per unit of foreign currency.

2/ The real value of a currency is the nominal value adjusted for the difference between inflation rates in the United States and the respective foreign country. Producer prices in the United States increased by 3.6 percent between January 1982 and March 1985. In contrast, producer prices in Taiwan increased by 0.4 percent during January 1982-June 1982 and then fell by 2.6 percent during July 1982-March 1985. Producer prices in Brazil increased by 2,373.4 percent during January 1982-March 1985 compared with a 2.0-percent increase in Korean prices for the same period.

Source: Central Bank of China, Financial Statistics, June 1985, and International Monetary Fund, International Financial Statistics, April 1985.

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* * * has switched to foreign products because of lower prices, but has never purchased more than * * * or * * * tons of fittings at a time. * * * is a wholesaler and plumbing distributor. * * * said that the Taiwan fittings generally serve the same markets as U.S. and Japanese fittings. The Taiwan fittings tend to be sold more in the retail markets (hardware stores, etc.), but they also compete "some" in the commercial markets. He stated that the Taiwan products meet ASTM standards.

* * *.--* * * alleged that * * * rejected its offer to sell * * * short tons of malleable, threaded pipe fittings for * * * and instead purchased products made in Taiwan for a price of * * *. * * * said that the allegation was "almost certainly correct." * * * said that his normal domestic supplier (which supplies 90 percent of his needs) usually offers "55 plus four 10's" as the standard price for a minimum order of 10,000 pounds. He can purchase fittings made in Taiwan for "55 plus six 10's" for a minimum order of 1,000 pounds. However, * * * stated that he only occasionally purchases the foreign-made fittings because most of his customers * * * prefer the domestic product. * * * said that if he shipped foreign-made products to his customers, about 90 percent of the customers would probably return them. * * * said that such antagonism exists because the quality of the foreign-made product is generally not as good as that made in the United States, although Plum-brand fittings (from Taiwan) are very good and Japanese fittings are excellent. Moreover, many contractors prefer to purchase domestically made products. * * * added that he believes purchases by hardware stores are based strictly on price, since do-it-yourself customers are not aware of quality differences in the products.

* * *.--* * * alleged that in * * * it lost a sale of * * * short tons of malleable fittings to * * *, owing to competition by low-priced imports from Brazil. * * * said that the allegation was not true.

* * *.--* * * alleged that in * * * it lost a sale of * * * short tons of malleable threaded pipe fittings to * * *, because it purchased a lower priced product made in Korea. * * * said that the allegation was not true. According to * * *, his company has not purchased domestically made pipe fittings since * * *. He added that his company switched to foreign fittings because imported products are underselling the domestic products to such a degree that domestic products are not competitive. * * * said that most imports are not equal in quality to domestic fittings, with the exception of the Japanese products, which "are the best money can buy." About 99 percent of * * *'s customers are * * *.

* * *.--* * * alleged that * * * rejected its offer to sell * * * short tons and instead purchased low-priced imports from Brazil. According to * * * the allegation is not true. * * * said that his company * * * does not purchase any foreign-made fittings. However, * * * said that most of his competitors do sell imported fittings and, because imports are substantially underselling the domestic products, he cannot compete for certain customers. For example, * * * said that large companies like * * * purchase foreign fittings. Upon complaining to * * * about their use of the foreign product, he said he was told, "* * *" * * *'s market * * * purchasers who insist on domestic products. Such purchasers usually take this position because of union policy or because of requirements attendant to financing by state, local, or federal governments. * * * noted that small plumbing contractors and individual purchasers base their buying decisions on price and do not

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care where the product is made. He said that the quality of the imported fitting is generally not as good as the U.S.-made product, although the Brazilian product, in contrast, is of very good quality.

* * *.--* * * alleged that in * * * it lost a sale of * * * short tons to * * *, owing to low-priced imports from Taiwan. * * * was unable to confirm or refute the allegation because * * *. * * * did say, however, that the lost sale is likely to have occurred because that is approximately the time * * * switched from domestically made to foreign-made products. The reason for the switch was price. * * * is a wholesaler that sells to * * *. * * * said that the Korean and Taiwan fittings compete with domestic and Japanese fittings in the hardware market. Imported fittings are competitive, although as far as quality, "there are some bad ones now and then."

* * *.--* * * alleged that in * * * it lost a sale of * * * short tons of malleable threaded pipe fittings to * * *, stating that * * * purchased a product made in Taiwan that was offered at a lower price. * * * said that the allegation was not true. According to * * *, * * * has imported pipe fittings directly from Taiwan since * * *, and any domestic orders after that time were probably just filling in gaps in their regular foreign supply. * * * said that his company switched to foreign products because they are usually of the same quality as domestically made articles, but at a much lower price. Most of * * *'s customers are * * *.

* * *.--* * * alleged that * * * purchased * * * short tons of Taiwan made malleable threaded pipe fittings in * * * at a price lower than that offered by * * *. * * * verified that he did purchase the Taiwan product because it offered a better discount, starting with a list price 5 to 10 percent lower than the domestic supplier. * * * stated that price was the major factor in his purchasing decision and that the quality of the Taiwan product is just as good as, if not better than, the domestic product. He said that the Taiwan producers use a technique that produces a smoother and better looking fitting. * * * also stated that * * * had not purchased imported products until * * * years ago, when a competitor introduced the foreign product. * * * had to do the same to remain competitive. * * * said that, although Japan produces the highest quality fitting and once had a major price advantage, its prices are now similar to those of the domestic producers; thus, most of the competition is among products from Brazil, Korea, and Taiwan. The principal markets for the pipe and tube fittings sold by * * * are the * * * markets. * * * said that imports from Brazil, Italy, Korea, and Taiwan now have "over 50 percent" of the commercial construction market. He noted that the imported products were first noticed about 8 years ago in the handyman centers, lumber yards, and do-it-yourself shops. Imports "got their start" in the residential market. They have, however, "worked their way up," and about 2 years ago began to compete in the commercial and industrial markets also.

Several allegations of lost sales were included in the petitions. * * * provided two lost sale allegations regarding fittings from Brazil and one regarding malleable fittings from Taiwan. * * * provided one lost sale allegation with repect to fittings from Brazil. * * * provided six instances of lost sales regarding Brazilian products and two regarding Korean products.

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Three lost sales allegations with respect to malleable pipe fittings from Brazil were statements by * * * that * * * contractors bought imported products directly from * * * rather than purchasing such products from a distributor. This practice allegedly caused * * *'s local distributor-customer to lose sales. 1/ Since there was no lost sale by * * *, no investigation to confirm the allegation was undertaken. The staff was able to contact one of the * * * contractors, * * *. * * * stated that * * * buys all of its fittings from distributors, including distributors of * * * fittings (* * *).

* * *.--* * * alleged that * * * purchased about * * * short tons of malleable and nonmalleable fittings * * * at a price which was * * * percent lower than that of * * *. * * * said that the allegation was correct, and that * * * is still buying Brazilian fittings. * * * buys such fittings because they are of the same quality as those of * * *, but at a lower price. * * * also noted that * * * is the "back order king of the industry." * * *'s orders from * * *, causing them to turn to * * * to fill in.

* * *.--* * * alleged that * * * purchased * * * short tons of malleable and nonmalleable fittings from * * *, until early 1984 when the order was lost to * * *. * * * stated that the amount alleged is true, but that the replacement of * * * with * * * is not. He does buy some nonmalleable fittings from * * *, but these are the ones that * * *. He has bought some imported malleable fittings from * * *, but less than * * * over the past four years. Rather, * * * has been replaced by other domestic manufacturers, and by Hitachi, a Japanese-made fitting. Moreover, he has never given * * * all of * * *'s business.

* * *.--* * * alleged that * * * was formerly a * * * customer, but is now purchasing pipe fittings made in Korea. * * * said that the allegation was correct. * * * said that the quality of the imported fittings is just as good as, and sometimes better than, that of domestic products. * * * said that * * * switched to imported products "within the last couple of years" because of lower prices. * * * sells wholesale to * * *.

* * *.--* * * alleged that * * * was once * * * but is now filling a portion of its needs for malleable fittings with products made in Brazil. * * * said that the allegation was true. According to * * *, * * * began purchasing imported products * * * in order to remain competitive. He added that about * * * percent of their purchases of pipe fittings are still of domestically-made items, and noted that imported products are generally of the same quality as domestic products.

* * *.--* * * alleged that * * * curtailed purchases of * * * fittings in favor of those from * * *. * * * said that * * * used to buy from * * *, but, since about * * *, they have returned to * * *. They now purchase almost no malleable or nonmalleable cast-iron fittings from * * *. * * * resumed purchasing from * * * because delivery from * * * "was terrible."

* * *.--* * * alleged that it lost a sale of * * * tons of malleable pipe fittings to * * * because of competition from low-priced imports from Taiwan. * * * said that the allegation was correct. Price was the major

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1/ Petition in inv. No. 731-TA-278, app. I, p. 4.

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factor for the switch from domestically made to foreign-made fittings. According to * * *, pricing is so competitive in his market area that * * * had to switch to imports to remain competitive. * * * said that the quality of the imports is generally good, but that he has been especially impressed with the quality of Brazilian fittings. * * * said that his major industrial customers insist on domestically made fittings, whereas other customers--particularly heating and plumbing contractors--insist on the lowest priced product.

* * *.--* * * alleged that * * * was once * * *, but is now filling a portion of its malleable pipe fittings requirements with lower priced Korean products. * * * said that the allegation was correct. According to * * *, * * * switched to imports because they offer a discount substantially lower than that of domestic suppliers. * * * said that * * * continues to purchase domestic fittings because some of its customers demand them. A large portion of * * *'s clientele, however, are * * * who insist on imports because of their lower price.

* * *.--* * * alleged that * * * now * * * short tons of malleable fittings * * * with * * *. * * * alleged that until * * *, this order went to them. According to * * *, the allegation is not true. * * * said that * * * has never purchased malleable fittings in such quantities. He added that * * * does purchase both domestic and imported fittings.

* * *.--* * * alleged that * * * had replaced * * *'s malleable fittings with those from * * * around * * *. * * * stated that the allegation was true. * * * has replaced about * * * percent of the fittings that used to be purchased from * * * with those from * * *. It did this in order to be price competitive: * * * fittings are of lower price and higher quality than those from * * *.

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APPENDIX A

FEDERAL REGISTER NOTICE

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[Investigations Nos. 731-TA-278 Through 281 (Preliminary)]

Certain Cast-Iron Pipe Fittings From Brazil, Korea, and Taiwan

AGENCY: International Trade Commission.

ACTION: Institution of preliminary antidumping investigations and scheduling of a conference to be held in connection with the investigations.

SUMMARY: The Commission hereby gives notice of the institution of preliminary antidumping investigations Nos. 731-TA-278 through 281 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Brazil [1] and the Republic of Korea (Korea) [2] of nonalloy, malleable [3] cast-iron pipe fittings, provided for in items 610.70 and 610.74 of the Tariff Schedules of the United States (TSUS), which are alleged to be sold in the United States at less than fair value, and by reason of imports from Taiwan of

[1] Investigation No. 731-TA-278 (Preliminary).
[2] Investigation No. 731-TA-279 (Preliminary).
[3] The malleable cast-iron pipe fittings covered by these investigations are those with standard pressure ratings of 150 pounds per square inch (psi) and heavy-duty pressure ratings of 300 psi.

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nonalloy, malleable cast-iron pipe fittings, provided for in TSUS items 610.70 and 610.74,[4] and nonalloy, nonmalleable [5] cast-iron pipe fittings other than cast-iron soil pipe, provided for in TSUS items 610.62 and 610.65,[6] which are alleged to be sold in the United States at less than fair value. As provided in section 733(a), the Commission must complete preliminary antidumping investigations in 45 days, or in this case by September 16, 1985.

For further information concerning the conduct of these investigations and rules of general application, consult the Commission's Rules of Practice and Procedure, Part 207, Subparts A and B (19 CFR Part 207), and Part 201, subparts A through E (19 CFR Part 201).

EFFECTIVE DATE: July 31, 1985.

FOR FUTHER INFORMATION CONTACT: Daniel Dwyer (202–523–4618), Office of Investigations, U.S. International Trade Commission, 701 E. Street NW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202–724–0002.

SUPPLEMENTARY INFORMATION:

Background

These investigations are being instituted in response to petitions filed on July 31, 1985 by the Cast Iron Pipe Fittings Committee.[7]

Participation in the investigations

Persons wishing to participate in these investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in §201.11 of the Commission's rule (19 CFR 201.11), not later than seven (7) days after publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairwoman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Service list

Pursuant to §201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a service list containing the names and addresses of all persons, or their representatives, who are parties to these investigations upon the expiration of the period for filing entries of appearance. In accordance with §§201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each document filed by a party to the investigations must be served on all other parties to the investigations (as identified by the service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Conference

The Director of Operations of the Commission has scheduled a conference in connection with these investigations for 9:30 a.m. on August 22, 1985, at the U.S. International Trade Commission Building, 701 E. Street NW., Washington, DC. Parties wishing to participate in the conference should contact Daniel Dwyer (202–523–4618) not later than August 20, 1985 to arrange for their appearance. Parties in support of the imposition of antidumping duties in these investigations and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

Written submissions

Any person may submit to the Commission on or before August 26, 1985 a written statement of information pertinent to the subject of the investigations, as provided in § 207.15 of the Commission's rules (19 CFR 207.15). A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with §201.8 of the rules (19 CFR 201.8). All written submissions except for confidential business data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any business information for which confidential treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Confidential Business Information." Confidential submissions and requests for confidential treatment must conform with the requirements of §201.6 of the Commission's rules (19 CFR 201.6).

Authority These investigations are being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to section 207.12 of the Commission's rules (19 CFR 207.12).

By order of the Commission.

Issued: August 1, 1985.

Kenneth R. Mason,

Secretary.

[FR Doc. 85–18752 Filed 8–6–85; 8:45 am]

BILLING CODE 7020-02-M

[4] Investigation No. 731–TA–280 (Preliminary).

[5] The nonmalleable cast-iron pipe fittings covered by this investigation are those with standard pressure ratings of 125 pounds per square inch (psi) and heavy-duty pressure ratings of 250 psi.

[6] Investigation No. 731–TA–281 (Preliminary).

[7] The 5 member producers of this committee are Stanley G. Flagg & Co., Inc., ITT-Grinnell, Stockman Valves & Fittings Co., U-Brand Corp., and Ward Foundry Division of Clevepak Corp. U-Brand Corp. did not join the other members of the committee in filing the petitions.

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APPENDIX B

LIST OF WITNESSES APPEARING AT THE PUBLIC CONFERENCE

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CALENDAR OF PUBLIC CONFERENCE

Those listed below appeared as witnesses at the United States International Trade Commission's conference:

Subject: Certain Cast-Iron Pipe Fittings from Brazil, Korea, and Taiwan

Inv. Nos.: 731-TA-278 through 281

Date and time: August 22, 1985, 9:30 a.m.

Sessions were held in connection with the investigation in the Hearing Room of the United States International Trade Commission, 701 E Street, N.W., in Washington.

In support of the petition:

Rose, Schmidt, Chapman, Duff & Hasley
Washington, DC
on behalf of

Cast-Iron Pipe Fittings Committee

Raymond E. Carey, Vice President and Director of Marketing, Supply Sales Division, ITT Grinnell Corp.

Mark L. Meyers, Director of Marketing, Ward Foundry Division, Clevepak Corp.

Peter Buck Feller)
Lawrence J. Bogard)---OF COUNSEL
Michael K. Tomenga)

In opposition to the petition:

Mudge, Rose, Guthrie, Alexander & Ferdon
Washington, DC
on behalf of

Mijin Metal Industrial Co.
Shin Han Cast-Iron Co.
Korean Casting and Forging Industries Cooperative
Korean Traders Association

Don Cameron)
Bob Bannerman)---OF COUNSEL

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The Mundo Corp.

Eron H. Appleby, President, The Mundo Corp.

Gibson, Dunn & Crutcher
Washington, DC
on behalf of

Sprink, Inc., Division of All Points Traders, Inc.

Joseph H. Price)
Robert M. Kruger) --OF COUNSEL

Bregman, Abell, Kay & Simon
Washington, DC
on behalf of

Pipe Fittings Committee of the Taiwanese Association of Machine Industries

Alan Kay)--OF COUNSEL

Dow, Lohnes & Albertson
Washington, DC
on behalf of

Sequoia International, Inc.

Patrick Colbert, Vice President for Marketing, Sequoia International, Inc.

James A. Treanor, III)--OF COUNSEL

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The Mundo Corp.

Eron H. Appleby, President, The Mundo Corp.

Gibson, Dunn & Crutcher
Washington, DC
on behalf of

Sprink, Inc., Division of All Points Traders, Inc.

Joseph H. Price)
Robert M. Kruger) --OF COUNSEL

Bregman, Abell, Kay & Simon
Washington, DC
on behalf of

Pipe Fittings Committee of the Taiwanese Association of Machine Industries

Alan Kay)--OF COUNSEL

Dow, Lohnes & Albertson
Washington, DC
on behalf of

Sequoia International, Inc.

Patrick Colbert, Vice President for Marketing, Sequoia International, Inc.

James A. Treanor, III)--OF COUNSEL

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APPENDIX C

ALTERNATIVE CALCULATIONS OF APPARENT U.S. CONSUMPTION AND MARKET PENETRATION OF IMPORTS

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Table C-1.--Certain cast-iron pipe fittings: U.S. imports, production, and apparent U.S. consumption, calculated without adjusting for inventories of imports, by types, 1982-84, January-June 1984, and January-June 1985

(In short tons)

Item	1982	1983	1984	January-June	
				1984	1985
Malleable:					
Imports 1/	16,973	17,205	24,106	11,614	11,562
U.S. production 2/	47,250	43,322	45,891	23,077	21,726
Total	64,223	60,527	69,997	34,691	33,288
Nonmalleable:					
Imports 1/	5,664	5,774	9,040	5,010	4,376
U.S. production 2/	35,949	32,512	36,446	17,636	18,923
Total	41,613	38,286	45,486	22,646	23,299
Total:					
Imports 1/	22,637	22,980	33,145	16,624	15,938
U.S. production 2/	83,199	75,834	82,337	40,713	40,649
Total	105,836	98,814	115,482	57,337	56,587

1/ Official import statistics are adjusted to eliminate known misclassifications.

2/ Statistics on U.S. production represent only domestic shipments of such products.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from official statistics of the U.S. Department of Commerce.

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Table C-2.--Certain cast-iron pipe fittings: Ratios of the quantity of imports 1/ and of domestic shipments of U.S. production to apparent U.S. consumption, calculated without adjusting for inventories of imports, by types and selected sources, 1982-84, January-June 1984, and January-June 1985

(In percent)

Item	1982	1983	1984	January-June	
				1984	1985
Malleable imports:					
Brazil	0.4	1.2	2.3	2.0	0.5
Korea	3.0	2.5	5.3	5.2	9.0
Taiwan	6.1	6.9	6.9	6.1	9.0
Brazil and Korea	3.4	3.7	7.7	7.2	9.5
Brazil and Taiwan	6.6	8.1	9.2	8.1	9.4
Korea and Taiwan	9.2	9.4	12.2	11.3	18.0
Brazil, Korea, and Taiwan	9.6	10.6	14.5	13.3	18.5
Total	26.4	28.4	34.4	33.5	34.7
Domestic shipments of U.S. production	73.6	71.6	65.6	66.5	65.3
Total	100.0	100.0	100.0	100.0	100.0
Nonmalleable imports:					
Taiwan	2.0	1.2	2.5	2.6	5.9
Total imports	13.6	15.1	19.9	22.1	18.8
Domestic shipments of U.S. production	86.4	84.9	80.1	77.9	81.2
Total	100.0	100.0	100.0	100.0	100.0

1/ Official import statistics are adjusted to eliminate known misclassifications. Statistics on U.S. production include only domestic shipments of such products.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from official statistics of the U.S. Department of Commerce.

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APPENDIX D

INFORMATION ON FACTORS AFFECTING THE MARKET FOR MALLEABLE CAST-IRON PIPE FITTINGS

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Certain organizations were contacted by the Commission staff in order to determine whether imported and U.S.-produced malleable cast-iron pipe fittings each serve segregated market segments, and whether differences in quality between imported and domestically-produced fittings might be the cause of such segregation. When information on this issue was obtained together with information on lost sales, the material is presented in the section entitled "Lost sales." Information obtained from other firms is as follows: 1/

* * *

* * * is a plumbing supply wholesaler and a manufacturer's representative for * * * different manufacturers (including * * *). A representative of the firm said that the largest market for imported fittings (and probably for all fittings) is the plumbing and hardware market. He noted that hardware stores sell all kinds of fittings, including certain low-quality imports. Most of the industrial market is domestic because industrial supply houses specify "domestic only."

* * *

* * * stated that imported products are used in both the do-it-yourself and the industrial markets. Imported product quality is just as good as domestic, although the quality of Japanese fittings is the best. The country of origin of the products makes no difference to most buyers, although some unions balk at using imported products.

* * *

This firm is a wholesaler of * * * handling only domestically-produced fittings. They do not sell imports because (1) they know most of their customers wouldn't accept them, and (2) they're patriotic. Some customers of theirs do buy imports, however, and in those instances, * * * can't compete. Imports are equal in quality to U.S.-made fittings, and meet ANSI standards, so these factors aren't an issue in making sales. The only issue is whether the customer prefers U.S.-made fittings for non-price reasons. * * *.

* * *

* * * had never heard that imported cast-iron pipe fittings are not suited for industrial use. His sales of such fittings are used in construction and industrial markets. Most of the foreign-made fittings which he sells meet ASTM specifications, and most are of very good quality. Japan makes the highest quality fittings, but those from Taiwan are also very good.

1/ Other information on this subject was presented in the public conference by The Mundo Corp. and Sequoia International, Inc.

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* * *

* * * stated that malleable cast-iron pipe fittings imported from Brazil are of "very high quality, the highest in the world." Their quality results from the type of sand used in the mold, which produces an especially good finish. The patterns for the fittings are made to conform to ANSI and ASTM specifications. The threading and machining are of the best quality. The fittings are approved by * * * testing laboratories and by independent testing laboratories (i.e., Underwriters Laboratories (UL) and Factory Mutual (FM)).

The market for Brazilian fittings is industrial; there are few sales to do it-yourself or hardware stores. * * * noted that, even though Brazilian fittings are sold in the industrial market, there still exists a "lot of resistance to imports," particularly through "Buy American" clauses in contracts. Such clauses occur especially in contracts with the federal or local governments, and with certain customers (* * *).

* * * said that he knows of no fittings that do not meet ANSI/ASTM specifications certain Korean fittings, for example, have been tested * * * and do meet such specifications. In general, * * * noted, a contractor would not test pipe fittings for the meeting of specifications. Most contractors would assume that the fittings sold to them are adequate, unless the fitting is to be used in an unusually hazardous situation.

* * *

* * * said that * * *. They have not imported the Taiwanese fittings, but do import Hitachi fittings from Japan. * * * said that the Taiwan fittings compete directly with those that are produced in the United States and in Japan. In the last three years the Taiwan fittings have penetrated "every" market: plumbing wholesalers, industrial wholesalers, etc. "There is no market that they haven't penetrated to some extent." The principal markets for all such fittings are the do-it-yourself market and the hardware market. He said that the Taiwanese sell to all of the markets to which * * * tries to sell. * * * imports Japanese fittings because the quality of the Taiwan fitting "doesn't come close."

* * *

This firm (* * *) has imported both Korean and Taiwanese fittings. * * *. They are similar in quality to the Taiwanese fittings and comparable to those made in the United States. There have been no customer complaints with regard to quality. * * * sells at wholesale to plumbers and hardware stores. * * * constitute its largest market; it has * * * industrial customers but * * * noted that this may be because * * *.

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* * *

This firm imports malleable cast-iron pipe fittings from Taiwan. * * * stated that the fittings are of good quality, and * * *. * * *'s fittings are sold principally to the * * * market. * * * said that plumbers demand higher quality, but still prefer the lower price of imports, * * *. Hardware stores tend to demand the lowest-priced, and so the lowest quality, fittings. Thus * * * estimated that * * *. Very little of the imported product (* * *) is sold to commercial or industrial users. * * * precluded from participating in the commercial/industrial market primarily because of local "Buy American" laws, and union policy.

Two factors that serve to * * * are country-of-origin markings and price competition from lower-priced imports. Since the end of 1984, when imported pipe fittings were required to have country-of-origin markings, * * * certain customers who preferred domestically-produced goods. Imports from Korea, and imports of other brands of Taiwanese fittings, are commonly sold at about * * * percent less than the list price of the Taiwan firm which supplies * * *. * * *'s prices are about * * * percent lower than that list price.

* * * noted that, at the wholesale level, * * *'s prices are about equal to that of U.S.-produced fittings--it is the wholesaler that takes the markup of imported goods. * * * agrees with other respondents in these investigations that Japanese producers, rather than U.S. producers, will benefit if imports from Korea and Taiwan are restricted.

Finally, with respect to standards, * * * stated that no imported fittings meet ANSI standards because none of the manufacturers have bothered to get Underwriters' Laboratories (UL) approval. A manufacturer needs UL approval and insurance to compete on an ANSI-required job. This requirement is only relevant, however, on jobs with federal specifications.

* * *

This firm * * *, but * * * said that he knows from experience that the quality of such products is generally good. There is no difference in use of imported versus domestic products, but the rule of thumb is that, if prices are comparable, contractors will buy U.S.-produced products.

* * *

This firm is a wholesaler of both domestically-produced and imported pipe fittings. Their imports are from Taiwan. * * * indicated that the quality of U.S.-produced and imported fittings is equal. They sell principally imported black, malleable fittings for * * *. They also sell imported galvanized fittings for use in * * *. The only quality issue with respect to such fittings is whether "the thing stands up to pressure. If it does, it's of acceptable quality." They tend to sell U.S.-produced fittings on government jobs and to "old timers," but 80 percent of their customers wouldn't know that they were getting imports.

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* * *

According to * * *, * * *. The imported fittings are brought to * * * where they are inspected, sorted, and packed. They are then sent to * * *. They are then sold to wholesalers. * * * said that the Korean fittings are not as good as those made in the United States. Quality problems include threads, bad casts, and surfaces. * * * eliminates bad-quality fittings in the sorting process. * * * tests the fittings themselves to see if they meet ANSI standards, and * * * said that he has "not heard of" any fitting not meeting standards for sale * * *.

* * *

* * * is * * * of malleable cast-iron pipe fittings from Taiwan (* * *). * * * stated that their imports are of very good quality, equal to U.S.-produced fittings. He noted, however, that some items coming out of Taiwan are of very low quality. * * *'s fittings are * * * percent higher in price than the lowest-priced Taiwanese fittings. * * * sells primarily to local wholesalers that in turn sell to commercial and industrial users, though some fittings are also sold to the residential/hardware store market. As evidence of the use of their imported product in industry, * * * noted that * * *.

* * * wholesalers that buy their main stock from U.S. producers, and that use imports to "fill in" small gaps in their main stock. This marketing technique is successful because * * *'s prices on small amounts of fittings are particularly attractive compared to those of the U.S. industry. * * * alleged that U.S. producers raise their prices every 6 to 8 months, and that when one U.S. producer raises its prices, the others follow suit within a week. Further, U.S. producers' standard discounts do not change, though special discounts may be available to preferred customers or for large orders. * * * noted that any business declines experienced by U.S. producers do not seem to have affected the prices charged.

* * *

According to * * *, this firm imports Korean fittings and sells them * * *.

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APPENDIX E

INFORMATION ON THE U.S. INDUSTRY NOT INCLUDING A POSSIBLE RELATED PARTY

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Table E-1.--Certain cast-iron pipe fittings: Production, capacity, and capacity utilization of the U.S. industry not including U-Brand Corp., by types, 1982-84, January-June 1984, and January-June 1985

* * * * * * *

Table E-2.--Certain cast-iron pipe fittings: Domestic shipments, exports, total shipments and end-of-period inventories of the U.S. industry not including U-Brand Corp., by types, 1982-84, January-June 1984, and January-June 1985

* * * * * * *

Table E-3.--Average number of employees, total and production and related workers, in establishments producing certain cast-iron pipe fittings, and hours worked by such workers, for the U.S. industry not includng U-Brand Corp., by types, 1982-84, January-June 1984, and January-June 1985

* * * * * * *

Table E-4.--Income-and-loss experience of 3 U.S. producers (not including U-Brand Corp.) on their operations producing malleable cast-iron pipe fittings, accounting years 1982-84, interim 1984, and interim 1985 1/

* * * * * * *

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